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ABSTRACT

An inventory of state and local financial support for health manpower training programs during fiscal years 1973, 1974, and 1975 is provided with information on state expenditures in 50 states and detailed reviewed of 32 states. Total financial support for health manpower training for all 50 states was $1.5 million during FY 1974, an increase of 23 percent over fiscal year 1973. For 32 states the mean per capita higher education appropriation for health manpower training programs was $46.35, with an average figure of $5.29. Variations in program expenditures in different states ranged from a high of $15.26 per capita for Oregon to a low of $1.97 for Massachusetts. The data collection methodology is described and tabulations are provided for state expenditures by year and type of support, and for state expenditures compared with total higher education expenditures by year and discipline. Capital outlay, direct support, and student aid figures are also tabulated. A glossary of related terms is provided. (BH)

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State Programs Supporting Health Manpower Training: An Inventory

Volume 2

Methodology

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
Health Resources Administration
Bureau of Health Manpower

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PREFACE

In July 1973, the Bureau of Health Resources Development[1/], Health Resources administration, contracted with Applied Management Sciences, Inc. for the development of an inventory of State and local financial support for health manpower training programs.

This project was designed in response to the identified need for accurate and current information on the characteristics and scope of such programs in terms of specific disciplines, students and schools involved, amounts of funds expended, and other related data. Such information is available for some years with respect to Federal government programs for the support of health training programs[2/] and for private foundations support for one year[3/]. However, there has been a lack of comparable information on the nature and funding of tax-based programs at State and local level, thus hampering efforts to perform significant analyses of trends in total national health expenditures[4/].

The basic objectives of the study were two-fold:

(1) To investigate the availablity and accessibility of data concerning State and local government support for health manpower training and develop methodologies for obtaining these data; and

(2) To utilize the procedures developed in the above phase to collect information regarding the status of State support for health manpower training programs for fiscal years 1973, and 1974.

1/ As of May 1, 1975 the Bureau of Health Manpower.

2/ See for example the latest INVENTORY OF FEDERAL PROGRAMS SUPPORTING HEALTH MANPOWER TRAINING: FY 1972. DHEW Pub. No. (NIH) 73-146.

3/ PRIVATE FOUNDATIONS SUPPORTING HEALTH MANPOWER EDUCATION AND TRAINING: AN INVENTORY, 1971. DHEW Pub. No. (HRA) 74-40.

4/ A Pilot survey (entirely from secondary sources and without breakdown or analysis) of State appropriations for health professions education was made in INVENTORY OF STATE APPROPRIATIONS SUPPORTING EDUCATION FOR THE HEALTH PROFESSIONS, FY 1971-72. DHEW Pub. No. (HRA) 75-31.

The final report on this study by Applied Management Sciences consists of three parts:

(1) An executive summary (on which this MAB Staff Report No. 76-61 is based).

(2) A full report analyzing results, discussing methodology, offering recommendations, and including three appendixes - A --- Data Tables, B --- Glossary of Terms, and C --- State Site Visit Reports.

(3) The actual inventory by States of institutions receiving aid, broken out into four categories of assistance: Institutional Support for Current Operations; Capital Outaly; Student Aid; and Direct Support.

THE INVENTORY OF STATE SUPPORT FOR HEALTH MANPOWER TRAINING PROGRAMS contains some summary tables for all 50 States based on primary and secondary sources, and some data only for the 32 States from which primary data was secured by site visits (in particular expenditures by State and discipline for 1973, 1974, and 1975).

State financial support is divided into four categories: Institutional support for current operation; capital outlays; direct support; and student aid.

Fifty basic State tables contain figures on financial support for current operations by institution and program, for 1973, 1974, 1975 (with some moneys actual, some estimated, and some budgeted). The capital outlay tables for all 50 States contains data by institution and project, with detailed breakdown within larger institutions (e.g. universities), for the same years where available. Direct support is broken down by State government agency, by department and program, by type of support (e.g. State stipends to hospitals, medical schools etc. for position support, tuition reimbursement, etc.). Student aid and related program information are given by institution and type of aid (fellowship, internship, grants), number of students aided etc. for the same years where available. This second volume provides highlights and selected tables from the final report and the inventory.

It should be borne in mind that, wherever data were available at the time of the study, they were incorporated into the final report and inventory,

but not all 50 States have complete data for the years 1973, 1974, and 1975, nor are all the data from primary sources. However, in this second volume and in the INVENTORY as they are now issued, all the data sources have been carefully noted (eliminating names etc. as required by Privacy Act regulations), and gaps are clearly marked. It may be that the gaps will be filled at a later date if Volumes I and II of the INVENTORY are found to be useful in meeting the need for information on types of financial support by State and local areas for the training of the Nation's health manpower.

The contract under which the Executive Summary, File Report, and Inventory of State Support for Health Manpower Training Programs were prepared has had a series of Project Directors under the contractor, Applied Management Sciences, and a series of Project Officers under the Bureau of Health Manpower and the Bureau of Health Planning and Resources Development. However, the latest and longest in duration in both categories has been Miss Linda LeBlanc for AMS, and Miss Lucy Kramer, of the Manpower Analysis Branch, Bureau of Health Manpower.

Howard V. Stambler, Chief
Manpower Analysis Branch
Office of Program Development
Bureau of Health Manpower

I
INTRODUCTION

Data collected during this study present the first detailed review of the level of State support for training of health manpower. The study was particularly successful in providing an inventory of State expenditures for specific health occupations in 32 States.

In order to develop the inventory, the present study was conducted in two phases. Phase I was a feasibility study to identify and examine the problems and issues involved in development of the inventory and to design standardized procedures for collecting the data on a national basis. A sample of eight States and nine local governments was selected for study. Phase II involved the implementation of the techniques and procedures developed in Phase I for compilation of government financial support for health manpower training in four categories:

* Institutional Support
* Capital Outlay
* Student Aid
* Direct Support

Although this study provides information on State expenditures for health training programs in all 50 States, it should be emphasized that only 32 of the States underwent intensive review following the study methodology developed during the conduct of this project. Selection of States was based on level of contribution to the total health manpower training effort. Of the 32 States, eight were examined in early 1974, with expenditure and program identified for fiscal years 1973 and 1974. The other 24 States have been enumerated using data for fiscal years 1973, 1974, and budgeted data for fiscal year 1975. Data on the remaining 18 States have been provided for fiscal years 1973, 1974, and 1975. However, those data were obtained by secondary source reviews only; consequently, data on these 18 States are not directly comparable to the 32 States included in the site visits.

Figure 1 summarizes the methodology employed in each State, while Chapter 2 discusses the major highlights.

Figure 1: DATA COLLECTION METHODOLOGY UTILIZED IN ALL 50 STATES

PHASE I Feasibility Study	PHASE II Extended Study	
PRIMARY DATA: 8 States (On-site visits) FY 1973, FY 1974	PRIMARY DATA: 24 States (On-site visits) FY 1973, FY 1974, FY 1975	SECONDARY DATA: 18 States (Document review only) FY 1973, FY 1974, FY 1975
Arkansas	Alabama	New Jersey	Alaska	New Hampshire
California	Connecticut	New York	Arizona	New Mexico
Colorado	Georgia	North Carolina	Hawaii	North Dakota
Delaware	Indiana	Ohio	Idaho	Oklahoma
Florida	Iowa	Oregon	Kansas	Rhode Island
Illinois	Kentucky	South Carolina	Maine	South Dakota
Massachusetts	Louisiana	Tennessee	Mississippi	Utah
Pennsylvania	Maryland	Texas	Montana	Vermont
	Michigan	Virginia	Nevada	Wyoming
	Minnesota	Washington		
	Missouri	West Virginia		
	Nebraska	Wisconsin		

II

HIGHLIGHTS

Total financial support for health manpower training for all 50 States reached the level of $1.5 billion during fiscal year 1974 (Table A). This represented an increase of $306 million, or nearly 25 percent, over the 1973 fiscal level. This percentage increase is significant when compared to the increase in appropriations of State tax funds in all 50 States for the operating expenses of institutions of higher education which was 6.8 percent from fiscal years 1973 to 1974. [1/]

Table A: STATE EXPENDITURES FOR HEALTH MANPOWER TRAINING BY TYPE OF SUPPORT
For fiscal years 1973 and 1974: 50 States

(thousands of dollars)

Type of Support	FY 1973		FY 1974	
Total Expenditures	$1,211,917	(100.00%)	$1,517,628	(100.00%)
Institutional Support	893,114	(73.7 %)	1,084,093	(71.4 %)
Capital Outlay	233,925	(19.3 %)	333,014	(21.9 %)
Student Aid	31,290	(2.6 %)	39,827	(2.6 %)
Direct Support	53,588	(4.4 %)	60,694	(4.1 %)

In FY 1973, expenditures for institutional support totaled over 893.1 million, whereas in FY 1974 the same expenditures were nearly $1.1 billion. Institutional support accounts for nearly 72 percent of the total State expenditures for health manpower training and approximately 12 percent of the total State expenditures for all higher education in FY 1974. Because it is a cost incurred on a yearly basis for the continuation of ongoing programs, institutional support represents an effective gauge of State involvement in health manpower training. The proportion of institutional support for health manpower training in relation to total higher education expenditures varies by State ranging from a high of 27.0 percent in Oregon to a low of 5.3 percent in Deleware. (See Table B). (The data suggest that institutional support of health manpower training programs within States is not

[1/] BOOK OF THE STATES: 1974-75, The Council of State Governments, 1975, p. 335.

Table B

INSTITUTIONAL SUPPORT OF HEALTH MANPOWER TRAINING vs. APPROPRIATIONS FOR ALL HIGHER EDUCATION
Total Expenditures by State - 32 Reporting States: FY 1974

State	State expenditures for institutional operating support for health manpower training[1] (in thousands)	Total State appropriations for all higher education[2]		
		Outlay (in thousands)	Percent to health manpower training	Rank by percent to health manpower training
ALABAMA	$ 26,301	$ 147,526	17.8%	3
ARKANSAS	13,082	73,400	17.8	3
CALIFORNIA	80,003	1,141,554	7.0	29
COLORADO	20,535	134,044	15.3	9
CONNECTICUT	14,377	119,918	12.0	16
DELAWARE	1,786	33,573	5.3	32
FLORIDA	54,683	346,056	15.8	7
GEORGIA	17,226	218,660	7.9	25
ILLINOIS	53,375	550,904	9.7	19
INDIANA	18,763	233,979	8.0	24
IOWA	12,060	142,389	8.5	23
KENTUCKY	21,410	148,214	14.4	12
LOUISIANA	20,768	158,855	13.1	15
MARYLAND	27,253	172,826	15.8	7
MASSACHUSETTS	11,424	176,707	6.5	31
MICHIGAN	69,428	464,029	15.0	11
MINNESOTA	46,844	187,552	25.0	2
MISSOURI	28,661	180,719	15.9	6
NEBRASKA	9,260	68,000	13.6	14
NEW JERSEY	23,950	257,708	9.3	20
NEW YORK	76,228	983,941	7.7%	27
NORTH CAROLINA	40,579	287,115	14.1	13
OHIO	52,627	345,759	15.2	10
OREGON	33,295	123,476	27.0	1
PENNSYLVANIA	30,154	420,867	7.2	28
SOUTH CAROLINA	15,335	143 402	10.7	17
TENNESSEE	12,983	147,253	8.8	22
TEXAS	91,648	487,874	17.4	5
VIRGINIA	22,059	206,458	10.7	17
WASHINGTON	21,586	232,343	9.3	20
WEST VIRGINIA	6,458	81,796	7.9	25
WISCONSIN	20,336	304,546	6.7	30
TOTAL	$994,477	$8,721,454[3]	11.4%	

[1] Data from basic State tables for operating support.

[2] Includes total general fund appropriations to all State-supported institutions of higher education exclusive of capital outlay. Source: *The Book of the States 1974-75*, The Council of State Governments (op. cit.).

[3] Represents 90.3% of total State expenditures for higher education.

directly related to the State's overall support of higher education.)

For the 32 reporting States, the mean per capita higher education appropriations for institutional support was $46.35. Of this figure, an average of $5.29 was expended for health manpower training programs. However, across States, variation in program expenditures is evident, ranging from a high of $15.26 per capita being spent in Oregon to a low of $1.97 in Massachusetts (Table C and Figure 2).

Figure 3 illustrates the percentage distribution of each health discipline in relation to total State institutional support for FY 1974. The largest single portion of funds were allocated for the training of physicians. This area alone represented 44.2 percent of the total State expenditures for institutional support of health training programs in FY 1974. Teaching hospitals accounted for an additional 20.3 percent. If the teaching hospitals are viewed as part of physician training of medical students through intern and residency programs, then physician training accounted for 64.5 percent of total State institutional support expenditures.

Of the total State expenditures for institutional support, Allied Health programs, accounted for the next highest percentage (14%), followed by Dentistry (7.2%), Nursing (6.1%), and Veterinary Medicine (2.6%), Pharmacy (2.2%), Public Health (0.9%), Osteopathy (0.5%), and Optometry (0.4%)

Capital outlays attributable specifically to health manpower training programs totaled $333.0 million in FY 1974. This represented 21.9 percent of the total health manpower training dollars for that year.

Involvement of individual State government agencies and hospitals in health manpower training programs accounted for 4.1 percent of the total FY 1974 expenditures, or $60.9 million.

State support to students enrolled in health training programs in educational institutions through such mechanisms as scholarships, loans, grants, and out-of-State student exchange program totaled $39.8 million during FY 1974.

Table C

APPROPRIATIONS FOR ALL HIGHER EDUCATION vs. INSTITUTIONAL SUPPORT FOR HEALTH MANPOWER TRAINING
Per Capita Expenditures, by State - 32 Reporting States: FY 1974

State	Per capita expenditures[1]			
	Total higher education[2]		Health manpower training[2]	
	Per capita appropriations	Rank by total per capita to higher education	Per capita expenditure	Rank by per capita to health manpower training
ALABAMA	$42.03	23	$ 7.49	8
ARKANSAS	37.11	27	6.62	10
CALIFORNIA	55.77	6	3.91	24
COLORADO	56.87	4	8.71	3
CONNECTICUT	38.91	25	4.66	19
DELAWARE	59.42	3	3.16	30
FLORIDA	47.67	14	7.53	7
GEORGIA	46.33	15	3.65	25
ILLINOIS	48.96	12	4.74	18
INDIANA	44.22	19	3.55	27
IOWA	49.39	11	4.18	22
KENTUCKY	44.93	17	6.49	11
LOUISIANA	42.70	21	5.58	16
MARYLAND	42.61	22	6.72	9
MASSACHUSETTS	30.54	31	1.97	32
MICHIGAN	51.09	10	7.64	6
MINNESOTA	48.14	13	12.02	2
MISSOURI	38.02	26	6.03	14
NEBRASKA	44.59	18	6.07	13
NEW JERSEY	34.98	30	3.25	28
NEW YORK	53.57	9	4.15	23
NORTH CAROLINA	55.07	7	7.78	5
OHIO	26.63	32	4.88	17
OREGON	56.59	5	15.26	1
PENNSYLVANIA	35.29	29	2.53	31
SOUTH CAROLINA	53.81	8	5.75	15
TENNESSEE	36.53	28	3.22	29
TEXAS	41.83	24	7.87	4
VIRGINIA	43.34	20	4.63	20
WASHINGTON	67.48	1	6.27	12
WEST VIRGINIA	45.93	16	3.63	26
WISCONSIN	67.38	2	4.50	21
AVERAGE	$46.35		$ 5.29	

[1] Computed using population data from U.S. Bureau of the Census, *1973 Statistical Abstract of the U.S.*, Data for 1972.

[2] Total outlays from Table B divided by total State population.

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Figure 2

PER CAPITA EXPENDITURE FOR INSTITUTIONAL SUPPORT OF HEALTH MANPOWER TRAINING
32 Reporting States: FY 1974

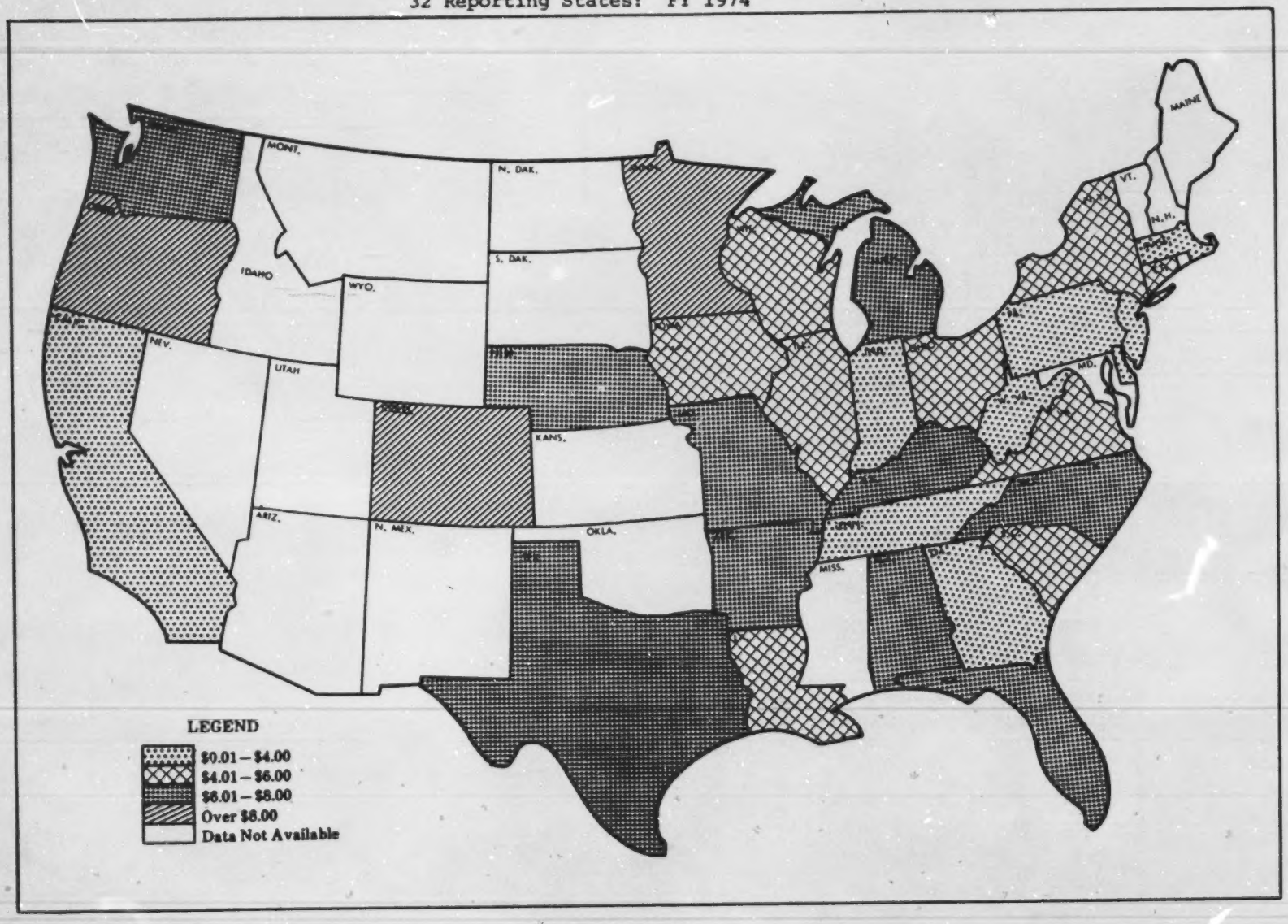
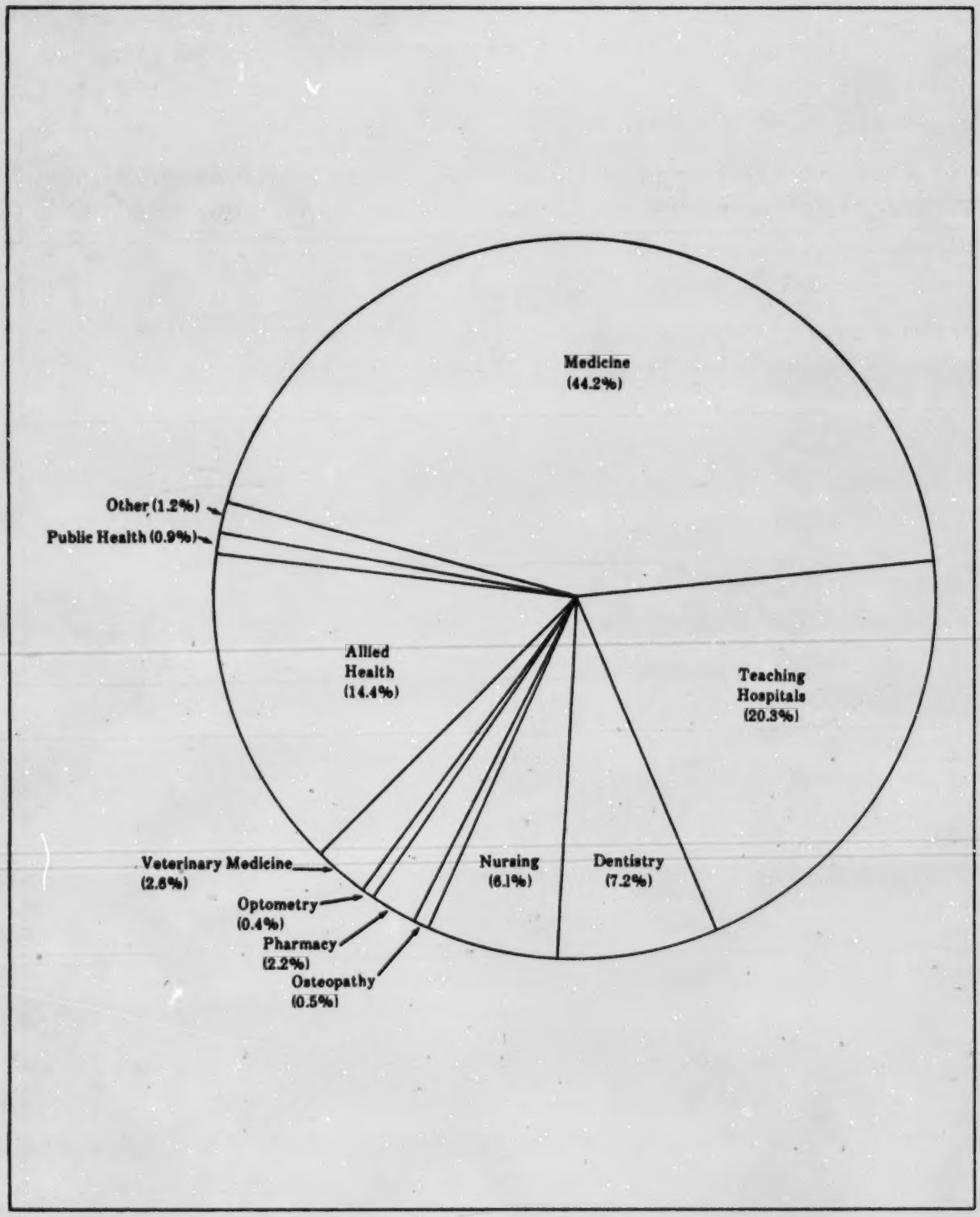


Figure 3

STATE EXPENDITURES FOR INSTITUTIONAL SUPPORT OF HEALTH MANPOWER TRAINING: FY 1974
Percentage Distribution, by Discipline



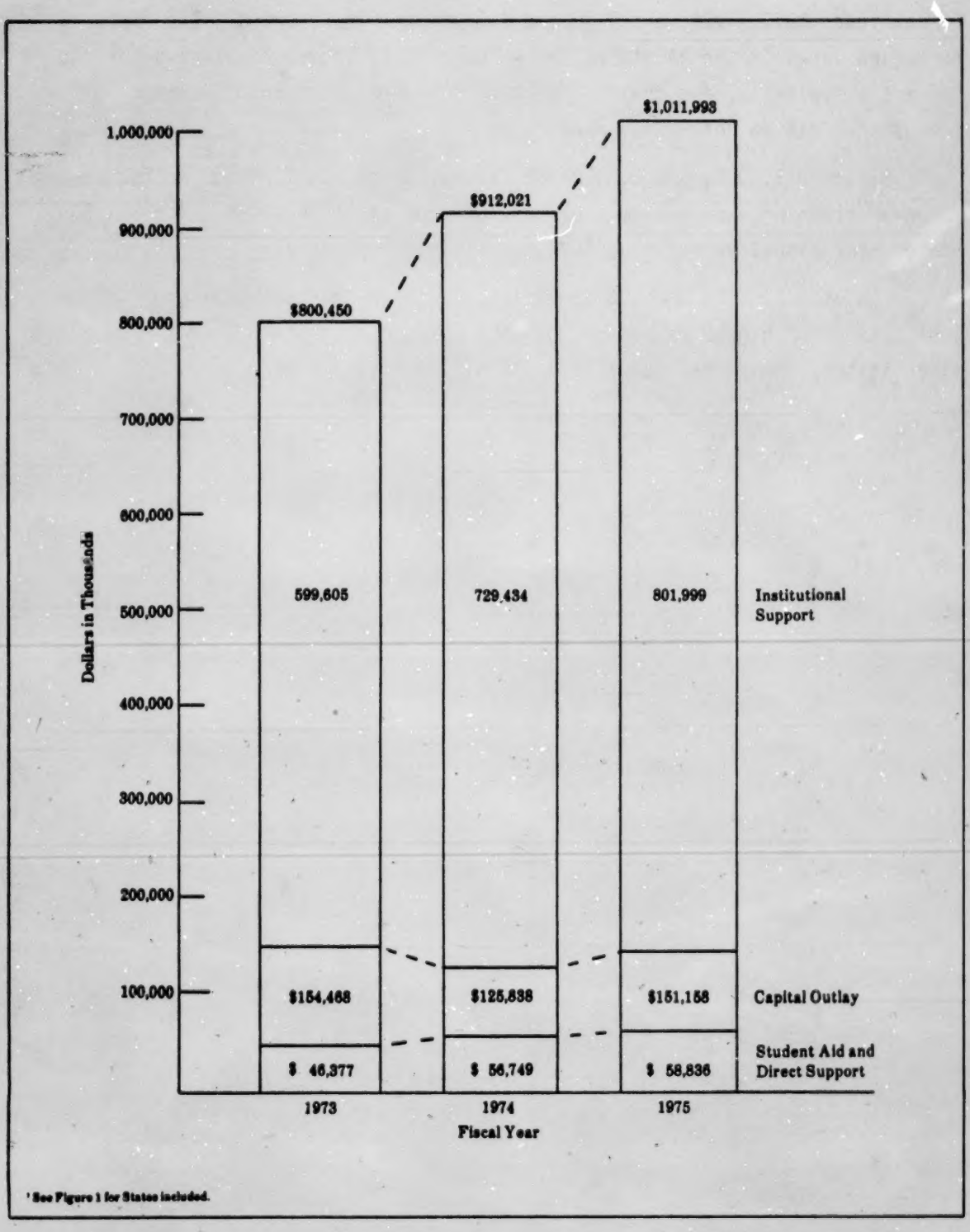
The changes in expenditures for the four categories of support across fiscal years 1973, 1974, and 1975 are illustrated in Figure 4. The expenditures are based on the 24 States for which primary source data for all three years are available, and thereby represents a more accurate discription of trends than can be determined from Table A.

Tables D.1, D.2, and D.3, which follow, summarize findings on health manpower training expenditures, by type of support and by State, for all 50 States, for fiscal years 1973, 1974, and 1975, respectively.

Tables E.1, E.2, and E.3 summarize health training expenditures in institutions of higher education, by discipline and by State, for the 32 States site-visited, for fiscal years 1973, 1974, and 1975, respectively.

Figure 4

COMPARISON OF TOTAL STATE EXPENDITURES FOR HEALTH MANPOWER TRAINING
Fiscal Years 1973, 1974, and 1975: 24 States



[1] See Figure 1 for States included.

Table D.1

EXPENDITURES FOR HEALTH MANPOWER TRAINING: FY 1973
By Type of Support and by State - 50 States

(dollars in thousands)

State	Total expenditures		Institutional support		Capital outlay		Student aid		Direct support	
	Outlay	Percent	Outlay	Percent	Outlay	Percent	Outlay	Percent	Outlay	Percent
ALABAMA	$ 18,974	(100.0)	$ 15,788	(83.2)	$ 809	(4.3)	$ 527	(2.8)	$ 1,850	(9.8)
ALASKA*	206	(100.0)	138	(70.0)	N/A		68	(30.0)	N/A	
ARIZONA*	11,443	(100.0)	10,613	(92.9)	N/A		327	(2.9)	503	(4.4)
ARKANSAS	24,219	(100.0)	10,360	(42.8)	12,108	(50.0)	443	(1.8)	1,308	(5.4)
CALIFORNIA	98,903	(100.0)	73,344	(74.1)	21,490	(21.7)	1,481	(1.5)	2,588	(2.6)
COLORADO	15,580	(100.0)	15,255	(97.9)	—		325	(2.1)	—	
CONNECTICUT	26,476	(100.0)	12,444	(47.0)	9,828	(37.1)	178	(0.7)	4,026	(15.2)
DELAWARE	2,489	(100.0)	1,561	(62.7)	50	(2.0)	469	(18.8)	409	(16.4)
FLORIDA	73,580	(100.0)	43,340	(58.9)	29,450	(40.0)	790	(1.1)	—	
GEORGIA	36,129	(100.0)	14,213	(39.3)	20,426	(56.6)	1,380	(3.8)	110	(0.3)
HAWAII*	N/A	(100.0)	N/A		N/A		N/A		N/A	
IDAHO*	390	(100.0)	390	(100.0)	N/A		N/A		N/A	
ILLINOIS	59,452	(100.0)	44,356	(74.6)	—		14,066	(23.7)	1,030	(1.7)
INDIANA	29,592	(100.0)	20,164	(68.1)	1,623	(5.5)	5	(0.0)	7,800	(26.4)
IOWA	16,505	(100.0)	10,745	(65.1)	4,472	(27.1)	69	(0.4)	1,219	(7.4)
KANSAS*	14,854	(100.0)	11,906	(80.1)	1,617	(10.9)	—		1,332	(9.0)
KENTUCKY	22,551	(100.0)	20,058	(93.6)	855	(4.0)	—		1,638	(2.4)
LOUISIANA	17,029	(100.0)	16,455	(96.6)	370	(2.2)	204	(1.2)	—	
MAINE*	N/A		N/A		N/A		N/A		N/A	
MARYLAND	25,307	(100.0)	24,214	(95.7)	—		82	(0.3)	1,011	(4.0)
MASSACHUSETTS	13,623	(100.0)	8,805	(64.6)	3,131	(23.0)	757	(5.6)	930	(6.8)
MICHIGAN	63,188	(100.0)	59,314	(93.9)	1,500	(2.4)	244	(0.4)	2,130	(3.4)
MINNESOTA	52,113	(100.0)	43,971	(84.4)	7,648	(14.7)	494	(0.9)	—	
MISSISSIPPI*	15,504	(100.0)	11,254	(72.6)	3,500	(22.0)	391	(2.5)	359	(2.3)
MISSOURI	34,043	(100.0)	26,651	(78.3)	4,107	(12.1)	—		3,285	(9.6)
MONTANA*	309	(100.0)	N/A		N/A		309	(100.0)	N/A	
NEBRASKA	9,710	(100.0)	8,383	(86.3)	950	(9.8)	83	(0.9)	294	(3.0)
NEVADA*	N/A	(100.0)	N/A		N/A		N/A		N/A	
NEW HAMPSHIRE*	45	(100.0)	N/A		N/A		45	(100.0)	N/A	
NEW JERSEY	24,521	(100.0)	19,241	(78.5)	3,422	(14.0)	147	(0.6)	1,711	(7.0)
NEW MEXICO*	2,400	(100.0)	2,400	(100.0)	N/A		N/A		N/A	
NEW YORK	109,895	(100.0)	61,011	(55.5)	39,091	(35.6)	4,414	(4.0)	5,379	(4.9)
NORTH CAROLINA	36,059	(100.0)	31,851	(88.3)	2,488	(6.9)	210	(0.6)	1,510	(4.2)
NORTH DAKOTA*	2,787	(100.0)	2,662[3]	(95.5)	N/A		125[2]	(4.5)	N/A	
OHIO	79,504	(100.0)	45,482	(57.2)	29,393	(37.0)	53	(0.1)	4,576	(5.8)
OKLAHOMA*	9,466	(100.0)	8,869	(93.7)	N/A		75	(0.8)	522	(5.5)
OREGON	21,068	(100.0)	20,227	(96.0)	702	(3.3)	139	(0.7)	—	
PENNSYLVANIA	37,217	(100.0)	27,699	(74.4)	1,207	(3.2)	1,100	(3.0)	7,211	(19.4)
RHODE ISLAND*	615	(100.0)	N/A		N/A		615	(100.0)	N/A	
SOUTH CAROLINA	12,484	(100.0)	11,817	(94.7)	528	(4.2)	123	(1.0)	16	(0.1)
SOUTH DAKOTA*	376	(100.0)	—		—		376	(100.0)	—	
TENNESSEE	18,130	(100.0)	10,793	(59.5)	6,905	(38.1)	291	(0.2)	141	(0.8)
TEXAS	69,492	(100.0)	69,037	(99.3)	—		240	(0.3)	215	(0.3)
UTAH*	17,400	(100.0)	17,086	(98.2)	N/A		314	(1.8)	N/A	
VERMONT*	3,497	(100.0)	3,472	(99.3)	N/A		N/A		25	(0.7)
VIRGINIA	27,126	(100.0)	19,488	(71.8)	7,545[1]	(27.8)	—		93	(0.3)
WASHINGTON	22,140	(100.0)	17,680	(79.9)	4,437	(20.0)	23	(0.1)	N/A	
WEST VIRGINIA	6,345	(100.0)	5,543	(87.4)	354	(5.6)	100	(1.6)	348	(5.5)
WISCONSIN	28,973	(100.0)	15,035	(51.9)	13,919	(48.0)	—		19	(0.1)
WYOMING*	208	(100.0)	N/A		N/A		208	(100.0)	N/A	
TOTALS	$1,211,917	(100.0)	$893,114	(73.7)	$233,925	(19.3)	$31,290	(2.6)	$53,588	(4.4)

[1] The capital outlay figure for the State of Virginia is for the 1972-1974 biennium.

[2] Figures for North Dakota are for the 1971-1973 biennium.

* States not included in primary data collection effort.

N/A Not available.

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Table D.2

EXPENDITURES FOR HEALTH MANPOWER TRAINING: FY 1974
By Type of Support and by State - 50 States

(dollars in thousands)

State	Total expenditures		Institutional support		Capital outlay		Student aid		Direct support	
	Outlay	Percent	Outlay	Percent	Outlay	Percent	Outlay	Percent	Outlay	Percent
ALABAMA	$ 33,880	(100.0)	$ 26,301	(76.2)	$ 4,935	(14.3)	$ 544	(1.6)	$ 2,100	(6.1)
ALASKA*	338	(100.0)	175	(51.8)	—		163	(48.2)	N/A	
ARIZONA*	14,807	(100.0)	13,689	(92.4)	N/A		570	(3.8)	548	(3.7)
ARKANSAS	22,351	(100.0)	13,082	(58.5)	7,075	(31.7)	591	(2.6)	1,603	(7.2)
CALIFORNIA	160,687	(100.0)	80,003	(49.8)	76,432	(47.6)	1,038	(0.6)	3,214	(2.0)
COLORADO	20,927	(100.0)	20,535	(98.1)	N/A		392	(1.9)	N/A	
CONNECTICUT	24,667	(100.0)	14,377	(58.3)	5,190	(21.0)	200	(0.8)	4,900	(19.9)
DELAWARE	2,889	(100.0)	1,786	(61.8)	N/A		597	(20.7)	506	(17.5)
FLORIDA	67,147	(100.0)	54,683	(81.4)	10,011	(14.9)	2,397	(3.6)	56	(0.1)
GEORGIA	19,098	(100.0)	17,226	(90.2)	46	(0.2)	1,592	(8.3)	234	(1.2)
HAWAII*	176	(100.0)	N/A		N/A		176	(100.0)	N/A	
IDAHO*	799	(100.0)	799	(100.0)	N/A		N/A		N/A	
ILLINOIS	110,991	(100.0)	53,375	(48.1)	39,263	(35.4)	18,353	(16.5)	N/A	
INDIANA	30,024	(100.0)	18,763	(62.5)	1,893	(6.3)	4	(0.0)	9,364	(3.1)
IOWA	18,155	(100.0)	12,060	(66.4)	4,473	(24.6)	101	(0.6)	1,521	(8.4)
KANSAS*	16,396	(100.0)	14,199	(86.6)	1,142	(7.0)	N/A		1,055	(6.4)
KENTUCKY	23,113	(100.0)	21,410	(91.9)			N/A		1,703	(7.4)
LOUISIANA	23,843	(100.0)	20,768	(87.1)	449	(1.9)	205	(0.9)	2,421	(10.2)
MAINE*	N/A	(100.0)	N/A		N/A		N/A		N/A	
MARYLAND	28,350	(100.0)	27,253	(96.1)	N/A		168	(0.6)	929	(3.3)
MASSACHUSETTS	15,346	(100.0)	11,424	(74.4)	2,026	(13.2)	849	(5.5)	1,047	(6.8)
MICHIGAN	80,414	(100.0)	69,428	(86.3)	7,500	(9.3)	360	(0.4)	3,126	(3.9)
MINNESOTA	47,922	(100.0)	46,844	(97.8)	320	(0.7)	758	(1.67)	—	
MISSISSIPPI*	26,935	(100.0)	14,317	(53.2)	11,584	(43.0)	642	(2.4)	392	(1.5)
MISSOURI	34,268	(100.0)	28,661	(83.6)	2,100	(6.1)	N/A		3,507	(10.2)
MONTANA*	596	(100.0)	N/A		N/A		596	(100.0)	N/A	
NEBRASKA	11,417	(100.0)	9,260	(81.1)	1,563	(13.7)	137	(1.2)	457	
NEVADA*	1,185	(100.0)	805	(67.9)	N/A		380	(32.1)	N/A	
NEW HAMPSHIRE*	56	(100.0)	N/A		N/A		56	(100.0)	N/A	
NEW JERSEY	31,511	(100.0)	23,950	(76.0)	5,480	(17.4)	162	(0.5)	1,919	(6.1)
NEW MEXICO*	2,275	(100.0)	2,275	(100.0)	N/A		N/A		N/A	
NEW YORK	86,046	(100.0)	76,228	(88.6)	N/A		4,439	(5.2)	5,379	(6.3)
NORTH CAROLINA	79,786	(100.0)	40,579	(50.9)	36,325	(45.6)	395	(0.5)	2,487	(3.1)
NORTH DAKOTA*	N/A	(100.0)	N/A		N/A		N/A		N/A	
OHIO	77,770	(100.0)	52,627	(67.7)	20,492	(26.3)	75	(0.1)	4,576	(5.9)
OKLAHOMA*	25,976	(100.0)	24,638	(94.8)	1,000	(3.8)	100	(0.4)	238	(0.9)
OREGON	37,603	(100.0)	33,295	(88.5)	4,182	(11.1)	126	(0.3)	—	
PENNSYLVANIA	95,404	(100.0)	30,154	(31.6)	58,643	(61.5)	N/A		6,607	(6.9)
RHODE ISLAND*	646	(100.0)	N/A		N/A		646	(100.0)	N/A	
SOUTH CAROLINA	29,048	(100.0)	15,335	(52.8)	13,525	(46.6)	146	(0.5)	42	(0.1)
SOUTH DAKOTA*	N/A	(100.0)	N/A		N/A		N/A		N/A	
TENNESSEE	22,818	(100.0)	12,983	(56.9)	9,343	(40.9)	345	(1.5)	147	(0.6)
TEXAS	93,467	(100.0)	91,648	(98.1)	938	(1.0)	686	(0.7)	195	(0.2)
UTAH*	19,180	(100.0)	18,719	(97.6)	N/A		461	(2.4)	N/A	
VERMONT*	25	(100.0)	N/A		N/A		N/A		25	(100.0)
VIRGINIA	22,926	(100.0)	22,059	(96.2)	—		767	(3.3)	100	(0.4)
WASHINGTON	28,706	(100.0)	21,586	(75.2)	7,084	(24.7)	36	(0.1)	—	
WEST VIRGINIA	6,835	(100.0)	6,458	(94.5)	—		100	(1.5)	277	(4.1)
WISCONSIN	20,355	(100.0)	20,336	(99.9)	—		N/A		19	(0.1)
WYOMING*	474	(100.0)	N/A		N/A		474	(100.0)	N/A	
TOTALS	$1,517,628	(100.0)	$1,084,093	(71.4)	$333,014	(21.9)	$39,827	(2.6)	$60,694	(4.1)

* States not included in primary data collection effort.

N/A Not available.

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Table D.3.

EXPENDITURES FOR HEALTH MANPOWER TRAINING: FY 1975
By Type of Support and by State - 50 States

(dollars in thousands)

State	Total expenditures		Institutional support		Capital outlay		Student aid		Direct support	
	Outlay	Percent	Outlay	Percent	Outlay	Percent	Outlay	Percent	Outlay	Percent
ALABAMA	$ 32,551	(100.0)	$ 29,756	(90.6)	$ 423	(1.3)	$ 472	(1.4)	$ 2,200	(6.7)
ALASKA*	463	(100.0)	188	(40.6)			275	(59.4)		
ARIZONA*	17,041	(100.0)	15,132	(88.3)	574	(3.4)	660	(3.9)	675	(4.0)
ARKANSAS										
CALIFORNIA										
COLORADO										
CONNECTICUT	29,918	(100.0)	16,370	(54.7)	8,178	(27.3)	203	(0.7)	5,167	(17.3)
DELAWARE										
FLORIDA										
GEORGIA	18,928	(100.0)	16,063	(84.9)	993	(5.2)	1,701	(9.0)	171	(0.9)
HAWAII*										
IDAHO*	805	(100.0)	805	(100.0)						
ILLINOIS										
INDIANA	32,642	(100.0)	19,799	(60.7)	2,155	(6.6)	56	(0.2)	10,629	(32.6)
IOWA	13,079	(100.0)	13,066	(99.9)	—		—		13	(0.1)
KANSAS*	21,574	(100.0)	19,195	(89.0)	400	(1.8)	—		1,979	(9.2)
KENTUCKY	38,140	(100.0)	21,966	(57.6)	13,200	(34.6)	—		2,972	(7.8)
LOUISIANA	28,599	(100.0)	25,855	(90.4)	559	(2.0)	215	(0.8)	1,970	(6.9)
MAINE*										
MARYLAND	37,885	(100.0)	36,336	(97.3)	—		60	(0.2)	959	(2.3)
MASSACHUSETTS										
MICHIGAN	98,073	(100.0)	74,270	(75.8)	21,007	(21.4)	360	(0.4)	2,336	(2.4)
MINNESOTA	53,905	(100.0)	51,043	(94.7)	1,893	(3.5)	969	(1.8)	—	
MISSISSIPPI*	22,578	(100.0)	19,545	(8.4)	1,900	(8.4)	651	(2.9)	484	(2.1)
MISSOURI	44,064	(100.0)	33,320	(75.6)	7,000	(15.9)			3,744	(8.5)
MONTANA*	599	(100.0)	—		—		599	(100.0)	—	
NEBRASKA	12,137	(100.0)	10,853	(89.4)	506	(4.2)	145	(1.2)	633	(5.2)
NEVADA*	1,655	(100.0)	907	(54.8)			748	(45.2)		
NEW HAMPSHIRE*	61	(100.0)	—		—		61	(100.0)	—	
NEW JERSEY	29,451	(100.0)	27,339	(92.8)	—		252	(0.9)	1,860	(6.3)
NEW MEXICO*	3,200	(100.0)	3,200	(100.0)						
NEW YORK	112,909	(100.0)	75,337	(66.7)	27,691	(24.5)	4,502	(4.0)	5,379	(4.8)
NORTH CAROLINA	55,118	(100.0)	42,131	(76.4)	9,090	(16.5)	781	(1.4)	3,116	(5.7)
NORTH DAKOTA*	4,386	(100.0)	4,091[1]	(93.3)			295[1]	(6.7)		
OHIO	76,686	(100.0)	61,893	(80.7)	10,317	(13.5)	—		4,476	(6.0)
OKLAHOMA*	37,342	(100.0)	30,503	(82.5)	6,200	(16.6)	100	(0.3)	239	(0.6)
OREGON	41,532	(100.0)	38,207	(92.0)	3,151	(7.6)	174	(0.4)	—	
PENNSYLVANIA										
RHODE ISLAND*										
SOUTH CAROLINA	24,554	(100.0)	18,981	(77.3)	5,062	(20.6)	N/A		511	(2.1)
SOUTH DAKOTA*	1,296	(100.0)	1,296	(100.0)	—		—		—	
TENNESSEE	29,185	(100.0)	16,561	(56.7)	12,064	(41.3)	417	(1.4)	153	(0.5)
TEXAS	96,748	(100.0)	94,053	(97.2)	2,090	(2.2)	396	(0.4)	209	(0.2)
UTAH*	20,813	(100.0)	20,241	(97.3)	—		572	(2.7)	—	
VERMONT*										
VIRGINIA	32,019	(100.0)	26,876	(83.9)	4,260	(13.3)	777	(2.4)	106	(0.3)
WASHINGTON	26,406	(100.0)	23,420	(88.7)	2,936	(11.1)	50	(0.2)	—	
WEST VIRGINIA	7,030	(100.0)	6,418	(91.4)	—		409	(5.8)	193	(2.7)
WISCONSIN	40,175	(100.0)	21,485	(53.5)	18,690	(46.5)	—		—	
WYOMING*	475	(100.0)	N/A		N/A		475	(100.0)	N/A	
TOTALS	$1,144,282	(100.0)	$917,401	(80.2)	$160,332	(14.0)	$16,275	(1.4)	$50,274	(4.4)

1 Figures for North Dakota are for the 1973-1975 biennium.

* States not included in primary data collection effort.

N/A Not available.

Table E.1 EXPENDITURES FOR HEALTH MANPOWER TRAINING IN INSTITUTIONS OF HIGHER EDUCATION: FY 1974
By Discipline and by State - 32 States

(dollars in thousands)

STATE / DISCIPLINE	TOTAL	MEDICINE	OSTEOPATHY	TEACHING HOSPITAL	DENTISTRY	PHARMACY	OPTOMETRY	PODIATRY	VETERINARY MEDICINE	NURSING	ALLIED HEALTH	PUBLIC HEALTH	UNALLOCATED HEALTH PROFESSIONS
ALABAMA.....													
EXPENDITURES	15,789	8,112	2,653	2,417		408				1,421	778		
(ENROLLMENT)		(926)		(297)		(71)				(773)	(909)		
ARKANSAS.....													
EXPENDITURES	10,360	2,879	4,264		474						2,744		
(ENROLLMENT)		(432)									(2,034)		
CALIFORNIA.....													
EXPENDITURES	73,344	35,157	18,039	4,487	1,392	329			3,134	1,809	7,024	1,973	
(ENROLLMENT)		(5,172)		(837)		(234)			(471)	(795)			
COLORADO.....													
EXPENDITURES	15,255	3,953	6,359	175	368				2,144	904	1,352		
(ENROLLMENT)		(1,106)			(137)					(552)	(1,553)		
CONNECTICUT....													
EXPENDITURES	12,444	2,210	2,784	1,830	569	-				649	426		3,976
(ENROLLMENT)		(160)		(78)	(455)					(609)	(766)		
DELAWARE.....													
EXPENDITURES	1,561		1,014							154	393		
(ENROLLMENT)										(608)	(85)		

Table E.1 (cont.)

STATE / DISCIPLINE	TOTAL	MEDICINE	OSTEOPATHY	TEACHING HOSPITAL	DENTISTRY	PHARMACY	OPTOMETRY	PODIATRY	VETERINARY MEDICINE	NURSING	ALLIED HEALTH	PUBLIC HEALTH	UNALLOCATED HEALTH PROFESSIONS
FLORIDA.....													
EXPENDITURES	43,340	13,520		18,275	1,701	797			307	935	7,804		
(ENROLLMENT)		(987)			(26)	(391)				(790)	(5,688)		
GEORGIA.....													
EXPENDITURES	14,213	6,065			2,182	1,043			2,069	1,618	1,237		
(ENROLLMENT)		(568)			(180)	(454)			(270)	(1,625)	(1,506)		
ILLINOIS.....													
EXPENDITURES	44,356	14,461	505	11,120	5,042	1,340			2,060	2,971	6,226	630	
(ENROLLMENT)		(2,093)											
INDIANA.....													
EXPENDITURES	20,164	8,287			2,807	1,297	929		1,632	3,691	1,521		
(ENROLLMENT)		(911)			(456)		(124)		(80)	(2,988)	(1,370)		
IOWA.....													
EXPENDITURES	10,745	5,552			1,730	583			1,669	801	409		
(ENROLLMENT)		(1,451)			(334)	(314)			(311)	(667)	(4,061)		
KENTUCKY.....													
EXPENDITURES	20,058	15,760		4,298									
(ENROLLMENT)		(861)											

Table E.1 (cont.)

DISCIPLINE → / STATE ↓	TOTAL	MEDICINE	OSTEOPATHY	TEACHING HOSPITAL	DENTISTRY	PHARMACY	OPTOMETRY	PODIATRY	VETERINARY MEDICINE	NURSING	ALLIED HEALTH	PUBLIC HEALTH	UNALLOCATED HEALTH PROFESSIONS
LOUISIANA.....													
EXPENDITURES	16,455	9,645			4,237	114			215	1,068	1,176		
(ENROLLMENT)		(1,308)			(364)	(224)			(34)	(1,202)	(110)		
MARYLAND.....													
EXPENDITURES	24,214	5,146	12,881		3,258	861				1,662	406		
(ENROLLMENT)		(634)			(559)	(244)				(743)	(198)		
MASSACHUSETTS..													
EXPENDITURES	8,805	3,217								1,561	4,027		
(ENROLLMENT)		(104)								(1,011)	(3,121)		
MICHIGAN.....													
EXPENDITURES	59,314	44,230	7,886								7,053	145	
(ENROLLMENT)		(7,736)											
MINNESOTA.....													
EXPENDITURES	43,971	26,015	2,796	5,469				2,460	1,269	1,804		4,158	
(ENROLLMENT)										(1,178)			
MISSOURI.....													
EXPENDITURES	26,651	6,762	17,398								2,491		
(ENROLLMENT)		490											

Table E.1 (cont.)

STATE / DISCIPLINE	TOTAL	MEDICINE	OSTEOPATHY	TEACHING HOSPITAL	DENTISTRY	PHARMACY	OPTOMETRY	PODIATRY	VETERINARY MEDICINE	NURSING	ALLIED HEALTH	PUBLIC HEALTH	UNALLOCATED HEALTH PROFESSIONS
NEBRASKA.....													
EXPENDITURES	8,383	3,924		2,780		24				918	736		
(ENROLLMENT)		(521)				(281)				(426)	(989)		
NEW JERSEY.....													
EXPENDITURES	19,241	13,921			2,436	801					2,083		
(ENROLLMENT)		(200)			(242)	(238)				(227)	(3,487)		
NEW YORK.....													
EXPENDITURES	61,011	38,666			2,533	1,091	312		1,392	4,201	12,817		
(ENROLLMENT)		(5,271)			(1,387)	(8)	(45)		(247)	(2,081)	(14,195)		
NORTH CAROLINA.													
EXPENDITURES	31,851	5,021			2,931	3,203				5,337	11,825	3,534	
(ENROLLMENT)		(942)			(550)	(601)				(2,736)	(12,117)	(663)	
OHIO.....													
EXPENDITURES	45,482	17,904		15,410	1,634	1,097	349		3,615	1,777	3,696		
(ENROLLMENT)		(3,079)			(1,005)	(702)	(185)		(756	(1,142)	(3,702)		
OREGON.....													
EXPENDITURES	20,227	5,119		9,889	2,149					1,222	1,848		
(ENROLLMENT)		(455)		(229)	(349)					(490)	(2,930)		

Table E.1 (cont.)

STATE / DISCIPLINE	TOTAL	MEDICINE	OSTEOPATHY	TEACHING HOSPITAL	DENTISTRY	PHARMACY	OPTOMETRY	PODIATRY	VETERINARY MEDICINE	NURSING	ALLIED HEALTH	PUBLIC HEALTH	UNALLOCATED HEALTH PROFESSIONS
PENNSYLVANIA...													
EXPENDITURES	27,699	20,287	2,750				95	127	1,764		2,676		
(ENROLLMENT)		(3,531)	(625)				(400)	(225)	(371)		(4,336)		
SOUTH CAROLINA.													
EXPENDITURES	11,817	6,974			2,053	614				1,266	617		293
(ENROLLMENT)		(813)			(174)	(364)				(598)	(363)		
TENNESSEE.....													
EXPENDITURES	10,793	3,352			826	693				1,203	4,719		
(ENROLLMENT)		(1,985)								(1,223)	(1,882)		
TEXAS.....													
EXPENDITURES	69,037	29,110	300	13,284	6,054	983	456			2,415	13,926	1,622	885
(ENROLLMENT)		(2,034)		(181)	(559)	(517)				(869)	(8,135)	(220)	(359)
VIRGINIA.....													
EXPENDITURES	19,488	7,865		6,593	1,673	227				636	2,494		
(ENROLLMENT)		(1,006)			(399)	(266)				(735)	(2,855)		
WASHINGTON.....													
EXPENDITURES	17,680	6,778		5,144	707	699			1,511	1,501	632	707	
(ENROLLMENT)		(1,451)			(466)	(516)			(308)	(1,684)	(486)	(153)	

Table E.1 (cont.)

STATE \ DISCIPLINE	TOTAL	MEDICINE	OSTEOPATHY	TEACHING HOSPITAL	DENTISTRY	PHARMACY	OPTOMETRY	PODIATRY	VETERINARY MEDICINE	NURSING	ALLIED HEALTH	PUBLIC HEALTH	UNALLOCATED HEALTH PROFESSIONS
WEST VIRGINIA..													
EXPENDITURES	5,543	2,429		310	1,076					504	1,224		
(ENROLLMENT)		(314)			(233)					(200)	(1,512)		
WISCONSIN.....													
EXPENDITURES	15,035	6,603		1,709		130				2,526	4,066		
(ENROLLMENT)		(826)				(543)				(1,353)	(5,194)		
TOTALS.....													
	824,326	378,924	3,555	164,886	59,407	18,400	2,878	127	23,978	44,019	110,230	8,466	9,457

Table E.2 EXPENDITURES FOR HEALTH MANPOWER TRAINING IN INSTITUTIONS OF HIGHER EDUCATION: FY 1973
By Discipline and by State - 32 States

(dollars by thousands)

DISCIPLINE / STATE	TOTAL	MEDICINE	OSTEOPATHY	TEACHING HOSPITAL	DENTISTRY	PHARMACY	OPTOMETRY	PODIATRY	VETERINARY MEDICINE	NURSING	ALLIED HEALTH	PUBLIC HEALTH	UNALLOCATED HEALTH PROFESSIONS
ALABAMA.....													
EXPENDITURES	26,301	11,513		4,516	2,847		647			2,505	4,273		
(ENROLLMENT)		(1,011)			(301)		(87)			(918)	(1,010)		
ARKANSAS.....													
EXPENDITURES	13,082	[illegible],846		5,748		578					2,910		
(ENROLLMENT)											(631)		
CALIFORNIA.....													
EXPENDITURES	80,003	36,946		20,459	4,704	1,358	360		3,409	1,861	9,012	1,894	
(ENROLLMENT)													
COLORADO.....													
EXPENDITURES	20,535	4,636		10,366	366	424			2,144	1,108	1,490		
(ENROLLMENT)					(41)						(1,259)		
CONNECTICUT....													
EXPENDITURES	14,377	2,838		2,600	2,091	591				1,185	410		4,662
(ENROLLMENT)		(192)			(92)	(553)				(1,047)	(611)		
DELAWARE.....													
EXPENDITURES	1,786			1,126						188	472		
(ENROLLMENT)													

Table E.2 (cont.)

DISCIPLINE → / STATE ↓	TOTAL	MEDICINE	OSTEOPATHY	TEACHING HOSPITAL	DENTISTRY	PHARMACY	OPTOMETRY	PODIATRY	VETERINARY MEDICINE	NURSING	ALLIED HEALTH	PUBLIC HEALTH	UNALLOCATED-HEALTH PROFESSIONS
FLORIDA.....													
EXPENDITURES	54,683	16,673		22,522	2,079	1,302			228	2,034	9,843		
(ENROLLMENT)		(533)			(50)	(567)				(1,073)	(6,226)		
GEORGIA.....													
EXPENDITURES	17,226	7,317			2,540	1,151			2,200	1,988	2,029		
(ENROLLMENT)		(599)			(182)	(438)			(285)	(1,909)	(1,649)		
ILLINOIS.....													
EXPENDITURES	53,375	19,062	631	12,230	5,148	1,470			2,270	3,690	8,184	690	
(ENROLLMENT)		(2,819)	(331)		(1,392)	(721)			(391)	(1,534)	(2,634)	(25)	
INDIANA.....													
EXPENDITURES	18,763	6,167			2,439	1,226	930		1,558	4,626	1,817		
(ENROLLMENT)		(906)			(455)		(123)		(82)	(4,002)	(1,294)		
IOWA.....													
EXPENDITURES	12,060	6,471			1,838	632			1,774	928	416		
(ENROLLMENT)		(1,410)			(365)	(423)			(341)	(654)	(3,963)		
KENTUCKY.....													
EXPENDITURES	21,410	16,726		4,684									
(ENROLLMENT)		(3,202)											

Table E.2 (cont.)

STATE / DISCIPLINE	TOTAL	MEDICINE	OSTEOPATHY	TEACHING HOSPITAL	DENTISTRY	PHARMACY	OPTOMETRY	PODIATRY	VETERINARY MEDICINE	NURSING	ALLIED HEALTH	PUBLIC HEALTH	UNALLOCATED HEALTH PROFESSIONS
LOUISIANA.....													
EXPENDITURES	20,768	9,928		5,464	360			756		2,439	1,821		
(ENROLLMENT)		(755)		(458)				(78)		(2,250)	(3,129)		
MARYLAND.....													
EXPENDITURES	27,253	5,656	14,136	3,720	1,004					2,254	484		
(ENROLLMENT)		(672)		(617)	(257)					(897)	(224)		
MASSACHUSETTS..													
EXPENDITURES	11,424	4,700								2,176	4,548		
(ENROLLMENT)										(518)	(1,876)		
MICHIGAN.....													
EXPENDITURES	69,428	52,921	8,243								7,997	266	
(ENROLLMENT)		(3,781									(8,987)		
MINNESOTA.....													
EXPENDITURES	46,844	27,805	3,345	5,553				2,540		1,353	1,992	4,256	
(ENROLLMENT)		(1,614)									(1,463)		
MISSOURI.....													
EXPENDITURES	28,661	6,825	19,162								2,674		
(ENROLLMENT)											(944)		

Table E.2 (cont.)

DISCIPLINE / STATE	TOTAL	MEDICINE	OSTEOPATHY	TEACHING HOSPITAL	DENTISTRY	PHARMACY	OPTOMETRY	PODIATRY	VETERINARY MEDICINE	NURSING	ALLIED HEALTH	PUBLIC HEALTH	UNALLOCATED HEALTH PROFESSIONS
NEBRASKA.....													
EXPENDITURES	9,260	3,928		3,140		357				953	881		
(ENROLLMENT)		(531)				(291)				(470)	(1082)		
NEW JERSEY.....													
EXPENDITURES	23,950	15,600			3,589	848				1,168	2,745		
(ENROLLMENT)		(240)			(273)	(276)				(504)	(4,196)		
NEW YORK.....													
EXPENDITURES	76,228	48,804			3,471	1,181	727		1,427	4,314	16,304		
(ENROLLMENT)		(5,625)			(1,271)	(5)	(65)		(250)	(2,550)	(15,852)		
NORTH CAROLINA.													
EXPENDITURES	40,579	6,717			3,409	3,701				7,957	14,809	3,986	
(ENROLLMENT)		(1,075)			(597)	(648)				(2,964)	(12,681)	(698)	
OHIO.....													
EXPENDITURES	52,627	20,190		16,800	2,251	1,453	396		4,153	2,552	4,832		
(ENROLLMENT)		(2,386)			(722)	(849)	(188)		(835)	(1,499)	(3,863)		
OREGON.....													
EXPENDITURES	33,295	6,280		20,822	2,492					1,358	2,342		
(ENROLLMENT)		(479)			(251)	(350)				(544)	(3,420)		

Table E.2 (cont.)

DISCIPLINE → / STATE ↓	TOTAL	MEDICINE	OSTEOPATHY	TEACHING HOSPITAL	DENTISTRY	PHARMACY	OPTOMETRY	PODIATRY	VETERINARY MEDICINE	NURSING	ALLIED HEALTH	PUBLIC HEALTH	UNALLOCATED HEALTH PROFESSIONS
PENNSYLVANIA...													
EXPENDITURES	30,154	21,990	2,957				95	127	1,857		3,127		
(ENROLLMENT)		(3,872)	(704)				(516)	(282)	(397)		(3,371)		
SOUTH CAROLINA.													
EXPENDITURES	15,335	7,090			2,715	738				1,805	2,599	1	387
(ENROLLMENT)		(871)			(201)	(409)				(1,019)	(2,476)		(86)
TENNESSEE.....													
EXPENDITURES	12,983	4,094			932	848				1,446	5,662		
(ENROLLMENT)		(2,026)								(1,617)	(2,107)		
TEXAS.....													
EXPENDITURES	91,648	35,892	1,499	17,094	9,203	1,201	551			4,189	18,147	1,721	2,151
(ENROLLMENT)		(2,433)		(191)	(635)	(564)				(1,271)	(7,954)	(308)	(394)
VIRGINIA.....													
EXPENDITURES	22,059	10,370		6,099	1,798	241				749	2,803		
(ENROLLMENT)		(1,040)			(410)	(270)				(819)	(3,272)		
WASHINGTON.....													
EXPENDITURES	21,586	7,553		6,218	1,729	761			1,725	1,878	840	882	
(ENROLLMENT)		(1,517)			(485)	(545)			(295)	(1,603)	(524)	(155)	

Table E.2 (cont.)

DISCIPLINE / STATE	TOTAL	MEDICINE	OSTEOPATHY	TEACHING HOSPITAL	DENTISTRY	PHARMACY	OPTOMETRY	PODIATRY	VETERINARY MEDICINE	NURSING	ALLIED HEALTH	PUBLIC HEALTH	UNALLOCATED HEALTH PROFESSIONS
WEST VIRGINIA..													
EXPENDITURES	6,458	2,709		332	1,384					607	1,426		
(ENROLLMENT)		(328)			(238)					(202)	(1,871)		
WISCONSIN.....													
EXPENDITURES	20,336	8,285		2,080		884				2,867	6,221		
(ENROLLMENT)		(823)				(586)				(1,747)	(4,808)		
TOTALS.....													
	994,477	439,532	5,087	201,722	71,762	22,309	3,706	127	26,041	60,178	143,110	9,174	11,722

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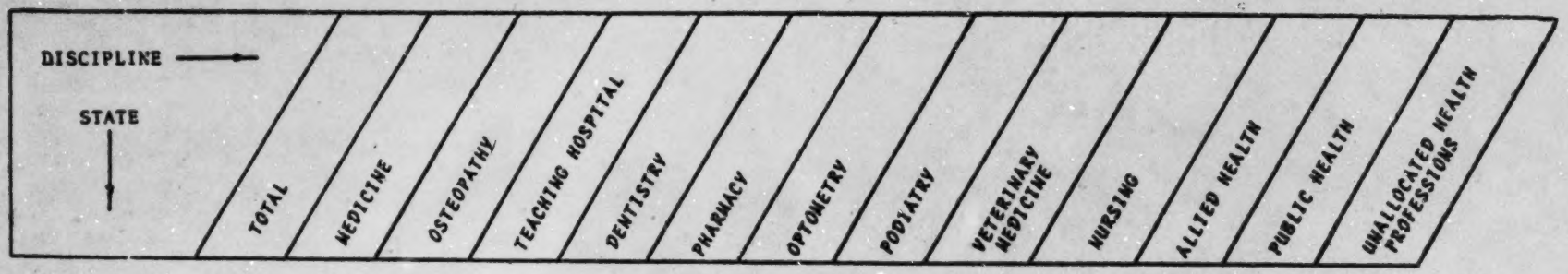
Table E.3 EXPENDITURES FOR HEALTH MANPOWER TRAINING IN INSTITUTIONS OF HIGHER EDUCATION: FY 1975
By Discipline and by State - 32 States

(dollars in thousands)

DISCIPLINE → / STATE ↓	TOTAL	MEDICINE	OSTEOPATHY	TEACHING HOSPITAL	DENTISTRY	PHARMACY	OPTOMETRY	PODIATRY	VETERINARY MEDICINE	NURSING	ALLIED HEALTH	PUBLIC HEALTH	UNALLOCATED HEALTH PROFESSIONS
ALABAMA.....													
EXPENDITURES	29,757	13,484		4,667	3,516		739			3,005	4,346		
(ENROLLMENT)		(1,070)			(315)		(98)						
ARKANSAS.....													
EXPENDITURES													
(ENROLLMENT)													
CALIFORNIA.....													
EXPENDITURES													
(ENROLLMENT)													
COLORADO.....													
EXPENDITURES													
(ENROLLMENT)													
CONNECTICUT....													
EXPENDITURES	16,370	3,696		3,062	2,218	704	20			1,312	406	4,952	
(ENROLLMENT)		(226)			(126)	(577)	(5)			(1,129)	(555)		
DELAWARE.....													
EXPENDITURES													
(ENROLLMENT)													

Table E.3 (cont.)



FLORIDA.....											
EXPENDITURES											
(ENROLLMENT)											
GEORGIA.....											
EXPENDITURES	16,063	4,966	-		2,599	1,197			2,459	2,362	2,480
(ENROLLMENT)		(653)			(183)	(402)			(300)	(2,363)	(1,775)
ILLINOIS.....											
EXPENDITURES											
(ENROLLMENT)											
INDIANA.....											
EXPENDITURES	19,800	6,518			2,569	1,210	970		1,459	5,396	1,678
(ENROLLMENT)		(1,063)			(505)		(133)		(82)	(4,039)	(2,143)
IOWA.....											
EXPENDITURES	13,066	6,916			1,878	627			2,102	1,006	537
(ENROLLMENT)		(1,438)			(387)	(457)			(365)	(710)	(2,916)
KENTUCKY.....											
EXPENDITURES	21,969	17,285		4,684							
(ENROLLMENT)											

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Table E.3 (cont.)

STATE / DISCIPLINE	TOTAL	MEDICINE	OSTEOPATHY	TEACHING HOSPITAL	DENTISTRY	PHARMACY	OPTOMETRY	PODIATRY	VETERINARY MEDICINE	NURSING	ALLIED HEALTH	PUBLIC HEALTH	UNALLOCATED HEALTH PROFESSIONS
LOUISIANA.....													
EXPENDITURES	25,855	11,788			6,271	407			1,482	3,630	2,277		
(ENROLLMENT)		(746)			(451)					(1,966)	(3,478)		
MARYLAND.....													
EXPENDITURES	36,836	5,712		15,020	5,318	2,315				7,149	1,321		
(ENROLLMENT)		(681)			(634)	(276)				(981)	(284)		
MASSACHUSETTS..													
EXPENDITURES													
(ENROLLMENT)													
MICHIGAN.....													
EXPENDITURES	74,370	56,493		8,612							8,940	325	
(ENROLLMENT)													
MINNESOTA.....													
EXPENDITURES	51,043	30,268		3,880	5,497				2,345	1,394	2,275		5,384
(ENROLLMENT)		(1,717									(1,602)		
MISSOURI.....													
EXPENDITURES	33,320	10,961		19,597							2,762		
(ENROLLMENT)													

Table E.3 (cont.)

STATE / DISCIPLINE	TOTAL	MEDICINE	OSTEOPATHY	TEACHING HOSPITAL	DENTISTRY	PHARMACY	OPTOMETRY	PODIATRY	VETERINARY MEDICINE	NURSING	ALLIED HEALTH	PUBLIC HEALTH	UNALLOCATED HEALTH PROFESSIONS
NEBRASKA.....													
EXPENDITURES	10,853	4,463		3,649		345				1,229	1,168		
(ENROLLMENT)		(534)				(290)				(410)	(1,169)		
NEW JERSEY.....													
EXPENDITURES	27,339	17,021			4,673	966				1,570	3,110		
(ENROLLMENT)		(295)			(261)	(337)				(805)	(4,406)		
NEW YORK.....													
EXPENDITURES	75,337	53,617			4,101	1,263	851	107	1,501	3,905	9,993		
(ENROLLMENT)		(3,953)			(914)								
NORTH CAROLINA.													
EXPENDITURES	42,131	8,392			4,142	4,103				9,117	11,768	4,610	
(ENROLLMENT)		(1,133)			(637)	(631)				(2,889)	(9,631)	(709)	
OHIO.....													
EXPENDITURES	61,893	24,727		17,600	2,689	1,734	598	-	4,498	2,993	5,853		1,200
(ENROLLMENT)		(2,794)			(842)	(947)	(263)		(844)	(1,638)	(4,338)		
OREGON.....													
EXPENDITURES	38,207	6,823		24,586	2,827					1,616	2,355		
(ENROLLMENT)		(486)		(251)	(345)					(617)	(3,703)		

Table E.3 (cont.)

STATE \ DISCIPLINE	TOTAL	MEDICINE	OSTEOPATHY	TEACHING HOSPITAL	DENTISTRY	PHARMACY	OPTOMETRY	PODIATRY	VETERINARY MEDICINE	NURSING	ALLIED HEALTH	PUBLIC HEALTH	UNALLOCATED HEALTH PROFESSIONS
PENNSYLVANIA...													
EXPENDITURES													
(ENROLLMENT)													
SOUTH CAROLINA.													
EXPENDITURES	18,981	8,542			3,476	931				2,313	3,201	73	445
(ENROLLMENT)		(930)			(162)	(475)				(1,117)	(2,711)		
TENNESSEE.....													
EXPENDITURES	16,561	5,360			1,558	840				1,733	7,069		
(ENROLLMENT)		(1,993)								(1,976)	(2,359)		
TEXAS.....													
EXPENDITURES	94,053	43,201	1,906	17,532	10,420	1,408	533			7,092	7,474	1,938	2,549
(ENROLLMENT)		(2,647)		(199)	(655)	(591)				(1,831)	(647)	(300)	(445)
VIRGINIA.....													
EXPENDITURES	26,876	13,269		7,329	1,928	259				976	3,115		
(ENROLLMENT)		(1,080)			(420)	(278)				(1,002)	(3,269)		
WASHINGTON.....													
EXPENDITURES	23,420	7,820		6,841	1,876	786			1,766	2,073	1,182	1,075	
(ENROLLMENT)		(1,575)			(510)	(486)			(339)	(1,585)	(527)	(175)	

Table E.3 (cont.)

STATE / DISCIPLINE	TOTAL	MEDICINE	OSTEOPATHY	TEACHING HOSPITAL	DENTISTRY	PHARMACY	OPTOMETRY	PODIATRY	VETERINARY MEDICINE	NURSING	ALLIED HEALTH	PUBLIC HEALTH	UNALLOCATED HEALTH PROFESSIONS
WEST VIRGINIA..													
EXPENDITURES	6,418	2,493		315	1,456					549	1,605		
(ENROLLMENT)		(330)			(246)					(214)	(2,039)		
WISCONSIN.....													
EXPENDITURES	21,485	8,984		2,510		1,045				3,849	5,597		
(ENROLLMENT)		(1,005)				(595)				(1,997)	(6,148)		
TOTALS.....													
	802,003	372,799	1,906	139,884	69,012	20,140	3,711	107	17,612	63,769	90,512	7,696	14,855

III

STUDY METHODOLOGY

Major Data Sources and Problems Encountered

In the initial stages of the project, several methods for conducting the study were examined to determine their feasability in identifying and collecting data for the inventory. The first involved the identification and review of materials available at a national level. Secondly, a telephone survey and a mail survey were instituted for eight pretest States and nine local governments to expand the list of secondary source documents. The third methodology involved identification of data sources at the national level, with subsequent on-site follow-up visits to each of the pretest States and several local governments. This final methodology proved to be highly successful in obtaining the required data at the level of detail required for the inventory, whereas the first two approaches proved insufficient to meet the full needs of the project.

Based upon these findings, the study was extended beyond the pretest States to include collection of data in an additional 24 States representing 93 percent of total State health manpower expenditures. States selected for site visits and their 1971-72 expenditures were: 1/

(Dollars in thousands)

New York	$159,357	Minnesota	$23,335
Texas	77,643	Louisiana	22,343
Ohio	73,850	Nebraska	20,536
New Jersey	48,553	Kentucky	19,771
Michigan	43,662	Alabama	18,975
Missouri	38,734	South Carolina	18,502
Virginia	34,159	Washington	18,360
North Carolina	32,674	Connecticut	18,341
Georgia	32,079	West Virginia	18,160
Maryland	29,602	Oregon	17,774
Iowa	28,229	Wisconsin	17,234
Indiana	26,513	Tennessee	15,656

No provision was made for the study of local support based on the findings of the pretest in terms of total dollars identified for these agencies and the level of effort required.

1/ Source: INVENTORY OF STATE APPROPRIATIONS SUPPORTING EDUCATION FOR THE HEALTH PROFESSIONS, FY 1971-72, DHEW Pub. No. (HRA) 75-31.

Table F compares information collected exclusively through secondary sources with that collected through additional on-site visits. Overall increase in dollar amounts reveal through use of combined primary and secondary sources was 49.2 percent, although a decrease was noted in some cases. Substantial increases were found in each category except direct support: Capital outlay showed an increase of 183.5 percent; student aid, 126.4 percent; and institutional support, 35.3 percent. Direct support reported decreased by 4.4 percent, apparently due to a "filtering out" of out-of-scope expenditures.

Major data sources, types of data available, and problems associated with its collection were as follows:

- Institutional Support

In most States, State budget offices and State boards of higher education were the best sources of institutional data and program information. Typically, institution budget requests are submitted to some intermediary body (i.e., board of regents or higher education) for review and submission to the State office of management and budget for inclusion in State executive budgets.

Although use of primary data sources greatly improved quality and quantity of collected information, determining actual amounts of State funds allocated and expended for institutional support was difficult, due primarily to lack of uniformity among State program accounting methods. For example, some States (California, North Carolina, and Illinois) did report specific health occupation program appropriations and expenditures: others (Pennsylvania, Michigan, and Colorado) reported only appropriations to health professions and health occupations training programs, and still others (Arkansas, Massachusetts) could identify only aggregate apporpriations to an institution.

In most cases, it was possible to identify total amounts of State support to institutions providingpost-secondary health training, health programs offered by field of training, and numbers of students participating in each program. In some instances, however, it was not possible, since many States tend to budget by major object category, cutting across program

Table F

COMPARISON OF DATA IDENTIFIED IN SECONDARY SOURCE DOCUMENTS AND ON-SITE VISITS

(dollars in thousands)

State	Institutional support		Capital outlay		Student aid		Direct support		Total	
	Secondary source	Primary & secondary source	Secondary source	Primary & secondary source	Secondary source	Primary & secondary source	Secondary source	Primary & secondary source	Secondary source	Primary & secondary source
Alabama	21,085	15,788	250	809	459	527	315	1,850	22,109	18,974
Arkansas	6,895	10,613	515	12,108	350	443	0	1,308	7,760	24,472
California	66,557	73,344	7,300	21,490	708	1,481	4,158	2,588	78,723	98,903
Colorado	18,145	15,255	1,317	0	419	325	0	0	19,881	15,880
Connecticut	6,630	12,444	0	9,828	182	178	1,146	4,026	7,958	24,476
Delaware	1,532	1,581	0	50	0	469	0	409	1,532	2,489
Florida	26,232	43,340	3,064	29,450	866	790	213	0	30,375	73,580
Georgia	25,501	14,213	0	20,426	474	1,380	22,364	110	48,339	36,129
Illinois	36,979	44,356	42,621	0	6,253	14,066	8,889	1,030	94,742	59,452
Indiana	12,818	20,164	1,634	1,623	0	5	3,866	7,800	18,318	29,592
Iowa	3,074	10,745	0	4,473	0	69	0	1,219	3,074	16,506
Kentucky	482	20,058	0	855	0	0	0	1,638	482	22,551
Louisiana	17,291	16,455	0	370	156	204	0	0	17,447	17,029
Maryland	24,160	24,214	0	0	82	82	1,011	1,011	25,253	25,307
Massachusetts	1,845	8,805	157	3,131	715	757	0	930	2,717	13,623
Michigan	83,680	59,314	0	1,500	162	244	5,543	2,130	89,385	63,188
Minnesota	6,991		10,783	7,648	0	494	0	0	17,774	52,113

Table F (continued)

State	Institutional support		Capital outlay		Student aid		Direct support		Total	
	Secondary source	Primary & secondary source	Secondary source	Primary & secondary source	Secondary source	Primary & secondary source	Secondary source	Primary & secondary source	Secondary source	Primary & secondary source
Missouri	10,650	26,651	0	4,107	0	0	1,557	3,285	12,207	34,043
Nebraska	7,342	8,383	0	950	75	83	0	294	7,418	9,710
New Jersey	32,537	19,241	3,422	3,422	132	147	0	1,711	36,091	24,521
New York	0	61,011	0	39,091	0	4,414	0	5,379	0	109,895
North Carolina	11,486	31,851	1,380	2,488	142	210	0	1,510	13,008	36,059
Ohio	16,125	45,482	0	29,393	0	53	0	4,576	16,125	79,504
Oregon	39,761	20,227	985	702	644	139	0	0	41,390	21,068
Pennsylvania	42,397	27,699	8,041	1,207	0	1,100	809	7,211	51,247	37,217
South Carolina	10,508	11,817	0	528	150	123	0	16	10,658	12,484
Tennessee	10,315	10,793	0	6,905	0	291	422	141	10,737	18,130
Texas	62,613	69,037	0	0	43	240	0	215	62,656	69,492
Virginia	24,914	19,488	0	7,545	0	0	723	93	25,637	27,126
Washington	3,794	17,680	305	4,437	0	23	0	0	4,099	22,140
West Virginia	22,318	5,543	739	354	67	100	0	348	23,124	6,345
Wisconsin	5,388	15,035	0	13,919	1,742	0	5,046	19	12,176	28,973
TOTALS	660,045	895,114	82,513	233,926	13,821	31,290	56,062	53,588	812,442	1,211,918
% INCREASE		35.3		183.5		126.4		(4.4)		49.2

areas. Operating support for major health professions, such as medicine, was reported more frequently and in more detail than other expenditures.

Although every State does not employ program budgeting procedures, many (e.g., Ohio and Virginia) have instituted use of budget formula to obtain some degree of fiscal control and more equity in distribution of appropriations to various State-supported institutions. Ideally, appropriations are provided to each institution on the basis of need. However, when available funds fall short of the total amount required, then adoption of some objective formula for equitable distribution becomes necessary.

Since equal allotments to each institution would not allow for extreme variations in enrollment, appropriations are generally based on number of "full-time equivalent" (FTE) students. Program offerings and costs differ for various institutions, so that some method of accounting for program differentials must be used. For example, Ohio employs the traditional FTE funding formula for public universities, 4-year colleges, and 2-year colleges, based upon a cost formula devised by the Ohio Board of Regents. Beginning in 1976, each of three levels of study in a given program will receive a different level of support in order to provide equitable distribution of State funds.

The Florida Division of Community Colleges, on the other hand, has developed an impressive computerized cost system, which provides total State cost, costs per FTE, number of students enrolled for each major program area, for each specific degree, and for each course offered. Such data is available for each community college, as well as for the entire system. Data are collected regularly and are readily accessible.

Whenever possible, State budgeting formulas were obtained during site visits and greatly facilitated detailed programmatic breakdowns. However, for some States, development of allocation methodology was necessary to identify expenditures by specific health program areas, where only "lump sum" appropriations to an institution were reported or where expenditures for "health professions" were not further subdivided. This occured most often in allied health programs. To reflect differences between various States' expenditures of general funds for support of such programs, an

allocation scheme was developed which depended upon the States' gross expenditure (or appropriation) for unallocated allied health professions and FTE enrollments, by program.

A reasonable approximation of State expenditures, by program, can be obtained by determining the number of students enrolled in a particular program (e.g., radiologic technology) as a percentage of total students in allied health, and multiplying this percentage by total State expenditures in all allied health programs at that particular school. The formula can be expressed as follows:

$$\text{EXPENDITURE/PROGRAM} = \left[\frac{\text{FTE/PROGRAM}}{\text{TOTAL ALLIED HEALTH FTE}}\right] \times \left[\text{TOTAL ALLIED HEALTH EXPENDITURES}\right]$$

- Capital Outlay

Sources of information on capital outlay for health manpower training varied widely from State to State, In some States (e.g., Pennsylvania), State building and construction projects were included in the State budget, while in others (e.g., Alabama and Texas) they were included in budget appropriations of individual institutions.

Since it was not possible to relate capital outlay for general construction to specific health training programs, data collection efforts focused on capital appropriations and bond repayments directly tied to health manpower training (e.g., medical schools or university teaching hospitals).

Little or no data was identifiable on use of funds by program area. Expenditures for multipurpose buildings, such as a classrooms or laboratories could not be related to the percentage of total space utilized for training of health personnel. Further, since many States use general obligation bonds to finance capital projects, often funding single projects with several different bond issues, there was no valid way of relating such funding to specific health sciences. Consequently, capital outlay data reported were limited to those projects that could be specifically linked to health manpower training.

- Student Aid

State scholarship commissions and boards of higher education were the best sources of data on financial aid to students in the health professions. While some States (i.e., California, Massachusetts, and Colorado) have scholarship funds and grants specifically earmarked for health professions, most student aid is unallocated by special program area. In some cases (e.g., Ohio), States could identify total appropriations for student aid, distribution of funds by school, and by students' socioeconomic and demographic data. However, where student aid was lumped together in a general fund, expenditures were calculated on the basis of health professions as a percentage of total enrollment, according to the school's program data, data for the State system, and data for all schools in the State. In some States, such as Kentucky and Missouri, specific data was not available, and student aid funds could not be allocated.

- Direct Support

In most States, offices of manpower development, manpower training, or manpower planning in departments of mental health and public health were data sources on funding and enrollment. However, identification of direct support items was possible only via direct contact with cognizant agency officials. In Massachusetts, both program and fiscal data could be supplied by the Examiner for Mental Health in the State Budget Office. In Pennsylvania, on the other hand, departments operated under line-item budgeting systems, so that compilation of data required special tabulation and data collecting efforts on the part of officials. Some States could not provide fiscal data because individual agencies were funded with unrestricted "lump-sum" appropriations and do not operate under a program budgeting system.

- Local Support

Due to paucity of data and lack of response in the pretest phase, local support was not included. However, recapitulation of certain findings might be appropriate here:

(1) Local support to colleges and health professions schools is

generally minimal, except for hospital nursing programs of less than two years, which are beyond the scope of this study.

(2) The level of local support to health manpower training programs is largely in direct proportion to the population of the municipality.

(3) Local financial documents generally do not show funds appropriated or expended in support of these programs. They are usually "hidden" in a lump-sum line-item designation for an agency, department, or institution.

(4) The major protion of local funds allocated to health manpower training appears to be tabulated at State rather than local levels and can be obtained from boards of community colleges, budget offices, or similar government offices.

Since each State presented its own excentricities with respect to accessibility and comprehensiveness of data identified in secondary sources, no specific interview methodology or questionairre was developed for use in all States. Instead, flexible on-site interviews were employed so that as much needed data as possible could be extracted, taking into account individual variations of State data systems.

The value of site visits and the importance of contact with knowledgable individuals as an adjunct to accurate data collection is evidenced in the following comment made by a member of a State board of higher education, following the publication of the 1971-72 inventory:

> May I suggest in future years, if such a report is contemplated, members of your staff could get in touch, personally, with those of us at the State level intimately familiar with the material being reported. We would, thus, be able to advise as to the accuracy of certain line item entries, as well as to guide you through the intricacies of other budgeting aspects. I make this suggestion because there is value in such a compilation at the Federal level, provided it is reasonably accurate and complete in the data cited and compared. Otherwise, incorrect if not insidious representations will be drawn regarding the activity of a State in health professions education, which will not be helpful to those of us with responsibilities for funding in this area."

IV

RECOMMENDED DATA COLLECTION METHODOLOGY
for Updating or Replicating a National Inventory

Relative to data requirements of the BHM inventory, most State governments' data collection and reporting systems are rudimentary. A few States have designed and implemented program budget systems that provide better information on State and local support for health manpower training, particularly for allied health professions in multidisciplinary institutions. However, for the present, any data collection effort must be satisfied with incomplete data and must employ a methodology that reflects the realities of existing data resources. For a flow-chart showing recommended data collection methodology for replicating or updating this study, see Figure 5, page 22.

Site visits to 32 States have produced, in addition to State financial data, a bibliography of information sources by State for each of the data elements (see Table F). Routine updating procedures, after initial system development, can be carried out at relatively minimal cost. Also, by inclusion of the remaining 18 States within the data base, a national information system can be maintained at a reasonable cost. As presently concieved, the recommended data collection system would require annual collection of secondary source documents (since these would be difficult to obtain one year after publication) and a biennial full-scale collection. Ideally, the inventory update should be scheduled for early spring to allow for completion of State fiscal budgeting periods. For example updating the INVENTORY in the fall of 1977 would permit inclusion of actual expenditures for FY 1975 and FY 1976 and of appropriations for FY 1977 (See Figure 6).

STEPS IN UPDATING

1. Obtain Secondary Source Documents

Secondary source documents, cited as reference materials in the INVENTORY, will be ordered annually or in the case of biennial budgets, when published, for each State office that provides relevant publications.

Figure 5

RECOMMENDED DATA COLLECTION METHODOLOGY

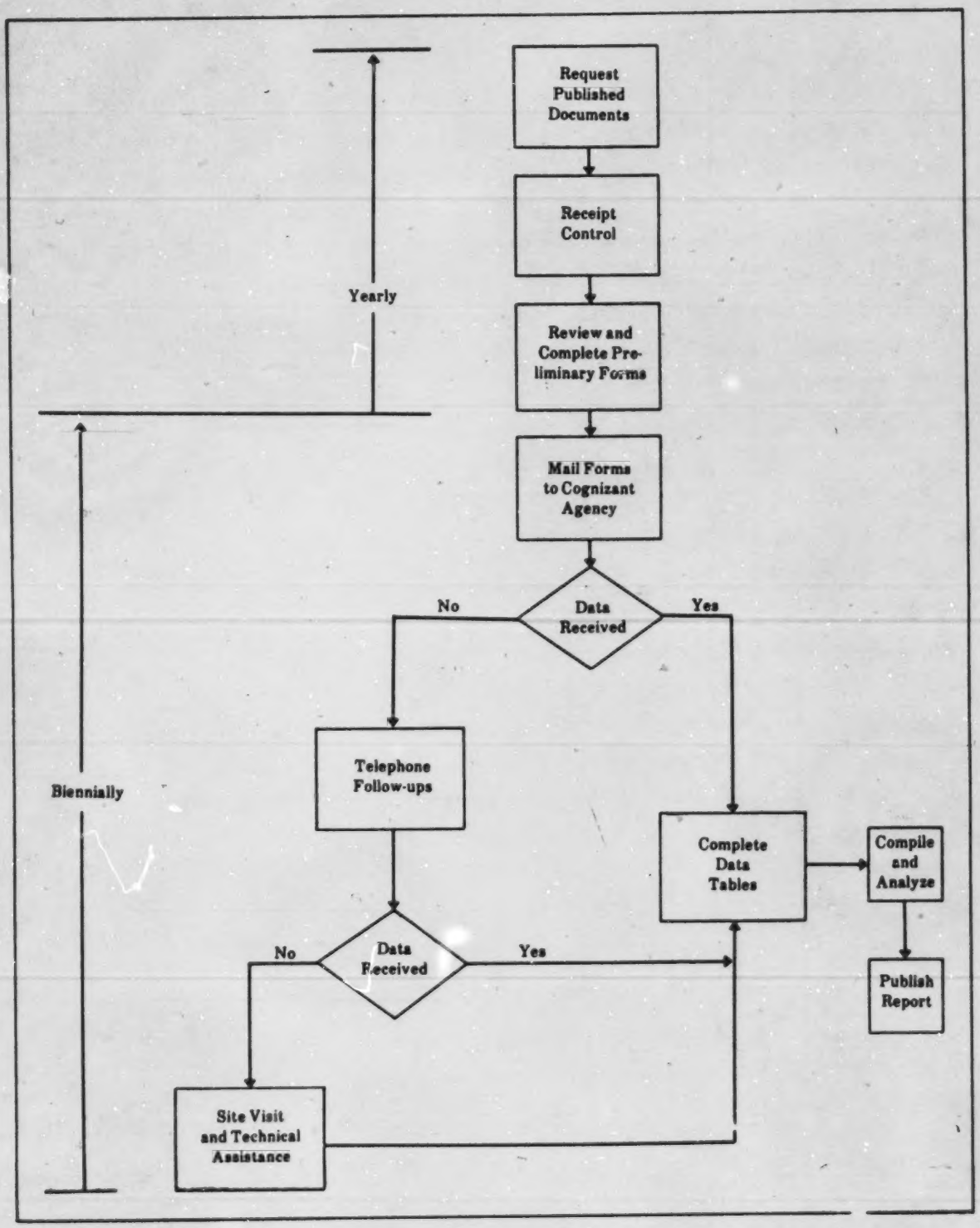


Table G

PRIMARY DATA SOURCES

By data element and State: 32 States

STATE	DATA CATEGORY			
	OPERATING SUPPORT	CAPITAL OUTLAY	STUDENT AID	DIRECT SUPPORT
ALABAMA	Assoc. Executive Director Commission on Higher Education	Assoc. Executive Director Commission on Higher Ed.	Assoc. Executive Dir. Comm. on Higher Ed.	State Executive Budget
ARKANSAS	Associate Director Dept. of Higher Ed. Director Comp. Health Planning Agency	Director Department of Finance and Administration	Southern Regional Education Board	Director Public Health Ed. Dept. of Health
CALIFORNIA	Principal Higher Ed Specialist Calif. Post-Secondary Commission Director, Analytical Studies Calif. Board of Comm. Colleges Director Occupation Education Program Calif. Board of Comm. Colleges Asst. Budget Director University of Calif.	Director Occupation Education Program Calif. Board of Comm. Colleges Asst. Budget Director University of Calif.	Director Vocation and Occupa- tional Training Grants Program State Scholarship Comm.	Director, Health Adm. Systems Program Department of Health

Table G (continued)

STATE	DATA CATEGORY			
	OPERATING SUPPORT	CAPITAL OUTLAY	STUDENT AID	DIRECT SUPPORT
COLORADO	Higher Ed. Budget Analyst Executive Budget Office Program Analyst Division of Occupational Education State Board of Comm. Colleges and Occupation Ed. Assoc. Director Academic Affairs Colorado Comm. on Higher Ed.	Higher Ed. Budget Analyst Executive Budget Office	Director, Student Exchange Program Western Interstate Commission for Higher Ed. Director Scholarship Program Colorado Comm. on Higher Ed.	Program Director Division of Mental Health Dept. of Health
CONNECTICUT	Asst. Controller University of Conn. Health Center Budget Analyst State Budget Office Dr. Cletus Claw Finance and Management Officer State College Board	Asst. Controller University of Conn. Health Center Finance and Management Officer State College Board	Chief Board of Examiners for Nursing	State Executive Budget
DELAWARE	Fiscal Coordinator Delaware Technical and Comm. College Director Division of Accounting University of Delaware	Director Capital Improvement Program Office of State Planning	None	Business Manager Delaware State Hospital

Table G (continued)

STATE	DATA CATEGORY			
	OPERATING SUPPORT	CAPITAL OUTLAY	STUDENT AID	DIRECT SUPPORT
FLORIDA	Administrator of Financial Affairs Division of Community Colleges Vice Chancellor Medical and Health Sciences Division of Universities Director of Research SREB	Chief Bureau of the Budget	Administrator Student Financial Aid	Manpower Development Coordinator Division of Mental Health
GEORGIA	Director State Board of Regents	Director State Board of Regents	Budget Examiner State Scholarship Commission Dr. J. O'Rear	Education Program Coordinator Dept. of Education

Table G (continued)

STATE	DATA CATEGORY			
	OPERATING SUPPORT	CAPITAL OUTLAY	STUDENT AID	DIRECT SUPPORT
ILLINOIS	Director Financial Analysis Staff Board of Higher Ed. Program Analyst Bureau of the Budget	Director Capital Development Board	Director Illinois State Scholarship Comm.	Asst Director and Personnel/Training Officer Dept. of Public Health Program Analyst Dept. of Vocational Ed. Director Manpower Development Programs Dept. of Mental Health
INDIANA	Deputy Commissioner for Finance Indiana Commission for Higher Education	Financial Analyst Indiana Commission for Higher Education	Director State Scholarship Commission	Deputy Commissioner Department of Mental Health
IOWA	Senior Program Coordinator Dept. of Public Instruction Program Coordinator Dept. of Public Instruction Budget Analyst Office of the Comptroller	Assistant Director Board of Regents	Assistant Director Board of Regents	Assistant Director Office of Staff Development and Training Dept. of Social Services

Table G (continued)

STATE	DATA CATEGORY			
	OPERATING SUPPORT	CAPITAL OUTLAY	STUDENT AID	DIRECT SUPPORT
KENTUCKY	Administrator for Finance Council on Public Higher Education	Administrator for Finance Council on Public Higher Education	None	Deputy Director Dept. of Human Resources Bureau of Health Services State Department of Education Bureau of Vocational Education
LOUISIANA	Vice President for Financial Affairs Louisiana State University System Director Bureau of the Budget Assistant Commissioner for Finance Board of Regents	Director Bureau of the Budget	Asst. Commissioner for Finance Board of Regents	Assistant Comptroller Dept. of Health and Human Resources Executive Assistant Dept. of Health and Human Resources
MARYLAND	Administrative Analyst Maryland Council for Higher Education Staff Specialist Board of Trustees of State Colleges Coordinator for Business Affairs Board of Community Colleges	Higher Education Analyst Dept. of Fiscal Research	Higher Education Analyst Dept. of Fiscal Research	Budget Analyst Division of Budget Review

Table G (continued)

STATE	DATA CATEGORY			
	OPERATING SUPPORT	CAPITAL OUTLAY	STUDENT AID	DIRECT SUPPORT
MASSACHUSETTS	Staff Assoc. for Systems Developments and Director of Programs Mass. Board of Regional Community Colleges Asst. Director and Staff Associate New England Board of Higher Ed. Budget Director Univ. of Mass.	Assoc. Civil Engineer and Principal Mechanical Engineer Bureau of Building Construction	Asst. Secretary Department of Education	Director Division of Manpower Development & Training Department of Public Health Examiner for Mental Health and Examiner for Public Health Bureau of the Budget
MICHIGAN	Budget Analyst Education Division Department of Management and Budget	Budget Analyst Education Division Department of Management and Budget	State Department of Education Bureau of Higher Education Division of Student Financial Aid Annual Report	Chief Education and Training Department of Public Health Administrative Assistant Personnel Division Department of Mental Health Budget Office Department of Mental Health
MINNESOTA	State College Board and Director Fiscal Services State Board of Community Colleges	Assistant Commissioner Department of Finance	Director Higher Education Coordinating Commission Executive Director Board of Nursing	Assistant Commissioner Department of Health

Table G (continued)

STATE	DATA CATEGORY			
	OPERATING SUPPORT	CAPITAL OUTLAY	STUDENT AID	DIRECT SUPPORT
MISSOURI	Associate Director Planning and Development and Director of Operations Junior College Administration Coordinated Board of Higher Education	Associate Director Planning and Development and Director of Operations Junior College Administration Coordinated Board of Higher Education	None	Personnel Director Division of Mental Health Supervisor Health Occupations State Department of Education
NEBRASKA	Director of Finance University of Nebraska Budget Officer Nebraska State Colleges	Director of Finance University of Nebraska Budget Officer Nebraska State Colleges	Director of Finance University of Nebraska Budget Officer Nebraska State Colleges	Director Department of Health Dept. of Public Institutions
NEW JERSEY	Assistant Director Office of Budget and Fiscal Planning Commission for Higher Education	Asst. Director Office of Budget and Fiscal Planning Commission for Higher Education	Assistant Chancellor Student Assistance and Special Programs Commission for Higher Education	Financial Analyst Department of Health

Table G (continued)

STATE	DATA CATEGORY			
	OPERATING SUPPORT	CAPITAL OUTLAY	STUDENT AID	DIRECT SUPPORT
NEW YORK	Assoc. For University Financial Analysis State University of New York Budget Coordinator The University of the State of New York Assoc. Accountant State Aid to Public and Private Colleges The University of the State of New York	Budget Coordinator The University of the State of New York Assoc. Accountant State Aid to Public and Private Colleges The University of the State of New York	Nursing Education Division of Higher Education The University of the State of New York Director Division of Manpower Training Department of Mental Hygiene Division of Manpower Training Dept. of Mental Hygiene	Director Division of Manpower Training Department of Mental Hygiene
NORTH CAROLINA	Program Analyst General Administration University of North Carolina System Director Continuing Education in Nursing University of North Carolina System	Program Analyst General Administration University of North Carolina System	Director Student Financial Assistance University of North Carolina System	Program Analyst Dept. of Human Resources Mr. Glenn Wilson Director Area Health Education Centers

Table G (continued)

STATE	DATA CATEGORY			
	OPERATING SUPPORT	CAPITAL OUTLAY	STUDENT AID	DIRECT SUPPORT
OHIO	Vice-Chancellor for Health Education Ohio Board of Regents	Vice-Chancellor for Health Education Ohio Board of Regents	None	Assistant Commissioner Office of Education and Training Dept. of Mental Health and Mental Retardation
OREGON	Registrar and Director of Business Affairs Oregon Institute of Technology Asst. Budget Director University of Oregon Health Services Center Budget Officer Southern Oregon State College Administrative Assistant Board of Higher Education	Assistant Budget Director University of Oregon Health Services Center Budget Officer Southern Oregon State College	Director State Scholarship Commission Asst. Director State Scholarship Commission	Director Division of Mental Health Dept. of Human Resources Program Analyst Division of Mental Health
PENNSYLVANIA	Senior Budget Analyst Budget Analyst State Office of the Budget Program Advisor Bureau of Academic Programs Dept. of Education Senior Program Specialist Bureau of Vocational Education Dept. of Education	Assistant Executive Director Pennsylvania Higher Ed. Facility Authority Comptroller General State Authority	Assistant Director Pennsylvania Higher Education Assistance Agency	Commissioner of Medical Services Dept. of Public Welfare Director Eastern Penn. Psychiatric Institute Director Bureau of Health Education Dept. of Health

Table G (continued)

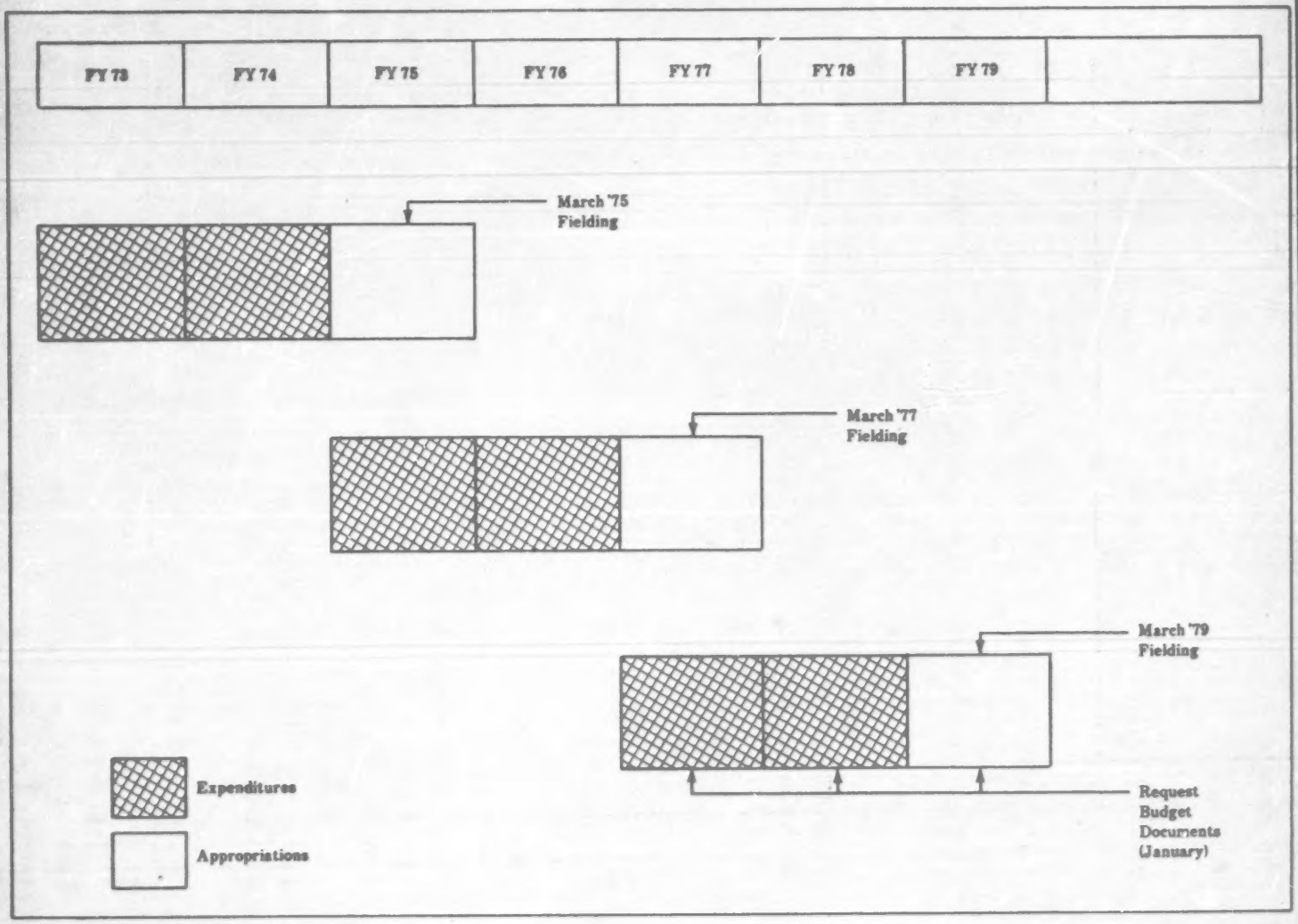
STATE	DATA CATEGORY			
	OPERATING SUPPORT	CAPITAL OUTLAY	STUDENT AID	DIRECT SUPPORT
SOUTH CAROLINA	Assistant Director for Finance Higher Education Commission Budget Office University of South Carolina	Assistant Director for Finance Higher Education Commission Budget Office University of South Carolina	Executive Secretary State Tuition Grants Agency	Director of Finance and Budget Officer Department of Health and Environmental Control Classification/Operations Director Dept. of Mental Health Grants Coordinator Dept. of Mental Health
TENNESSEE	Assistant Director of Health Professions Department of Higher Education	Assistant Director of Health Professions Department of Higher Education	Director Tennessee Student Assistance Corporation	Director of Training Dept. of Mental Health Training Officer Dept. of Public Health
TEXAS	Asst. to the Chancellor Board of Regents Director Texas Education Agency	Asst. to the Chancellor Board of Regents Director Texas Education Agency	Assistant Director Department of Mental Health and Mental Retardation	Executive Budget
VIRGINIA	Director State Council for Higher Education	Director Capital Construction Division	Financial Aid Analyst State Council for Higher Education	Director State Division of Personnel

Table G (continued)

STATE	DATA CATEGORY			
	OPERATING SUPPORT	CAPITAL OUTLAY	STUDENT AID	DIRECT SUPPORT
WASHINGTON	Budget Coordinator for Ed. Budget Analyst Office of Program Planning and Fiscal Management Coordinated Council for Higher Education State Board for Community College Education	Budget Coordinator for Ed. Budget Analyst Office of Program Planning and Fiscal Management Coordinated Council for Higher Education	State Board for Community College Ed.	None
WEST VIRGINIA	Chancellor Board of REgents	Chancellor Board of Regents	None	None
WISCONSIN	Senior Staff Associate University of Wisconsin Research Associate Board of Vocational, Technical and Adult Education	Senior Staff Associate University of Wisconsin	Director Higher Education Aids Board State Scholarship Commission	Financial Director of Programs Department of Health and Human Resources

Figure 6

TIMETABLE FOR DATA COLLECTION



For example:

Alabama:
* Executive Budget, Education Funds
* Executive Budget, State General Fund and Trust Funds

Arkansas:
* Recommended General Revenue Requirements for Arkansas Higher Education
* State of Arkansas, Budget Manual

California:
* University of California Ananysis of the Budget for Current Operations
* University of California Campus Financial Schedules
* Governors Budget
* University of California, Budget for Capital Improvements

All documents will be logged in, and filed for later review. Unresponsive States will be contacted by telephone to ensure receipt of all documents.

2. Review Secondary Sources

Each secondary source document will be reviewed for data related to funding of health training programs, such as line-item budget entries under departments of higher education, vocational education, health, and mental health. State funds to be tabulated will consist of restricted funds earmarked for health training (i.e., teaching hospitals), unrestricted funds for instructional expenses in health-related fields, capital outlay specifically designated for use in health sciences education, and available program enrollment data.

In addition, changes in State organizational structure and budgeting procedures will also be noted, and the list of participating offices verified by telephone.

3. Prepare Preliminary Data Tables

Preliminary data will then be entered in the proper table (see Figure 7) in preparation for institution of the full-scale survey. Data entered will include the source, by document and page number, of each piece of information. Tables will be prepared, by data element, for each year to be

Figure 7: EXAMPLE OF TABULATION FORMS

- for Institutional Support Data

Institution and Program	State Funds for Current Operation			Enrollment			Additional Information
	1973 Actual	1974 Actual	1975 Budgeted	1973	1974	1975	
Allied Health Programs (Con.)							
(7) Longwood College							
• Medical Technology	6,152	5,680	5,812	39	40	40	
• Speech Pathology	8,179	9,882	10,574	30	40	45	
(8) Clinch Valley College							
• Medical Technology	20,160	18,765	19,565	28	25	25	
(9) Northern Virginia Community College							
• Dental Assisting	38,639	46,915	52,778	43	50	54	
• Dental Laboratory Technology	21,543	23,457	24,478	24	25	25	
• Respiratory Therapy	26,929	32,347	39,499	30	35	40	
• Medical Records Technolgy	24,236	29,926	34,161	27	32	35	
• Medical Laboratory Technology	17,910	18,687	19,501	20	20	20	
• Physical Therapy	32,315	35,546	40,026	36	38	41	
• Nursing (A.S.)	163,331	171,397	180,767	182	183	185	
(10) Virginia Western Community College							
• Dental Assisting	15,480	17,992	20,637	18	20	22	
• Mental Health (2 year)	42,180	44,004	46,374	49	49	50	
• Radiologic Technology	23,221	26,668	37,488	27	32	40	
• Nursing (A.S.)	30,060	53,833	70,212	35	60	75	

Figure 7 (continued-2)

• for Capital Outlay Data

Institution and Project	State Funds for Capital Outlay		Comments
	FY 1972-1974 Actual	FY 1974-1976 Budgeted	
University of Virginia (Con.)			
(4) Medicine	291,000	99,500	(4) For completion of present medical school.
SUBTOTAL	1,464,500	268,500	
Virginia Polytechnical Institute			
(1) Veterinary Medicine	---	225,000	(1) Funds are for planning for new classroom, laboratory and office building for the College of Veterinary Medicine.
Virginia Highlands Community College			
(1) Nursing	---	17,060	(1) Funds are for plans for a nursing education building.
TOTAL CAPITAL OUTLAY	7,544,500	4,260,220	

• for Student Aid Data

Figure 7 (continued-3)

Institution and Aid Program	State Funds for Student Aid			Program Information	Comments
	1973 Actual	1974 Actual	1975 Estimated		
Financial Assistance (Continued)	N/A				
(38) Germanna Community College		1,600	1,600		
(39) J.S. Reynolds Community College		1,600	1,600		
(40) John Tyler Community College		1,200	1,200		
(41) New River Community College		7,200	7,200		
(42) Northern Virginia Community College		31,140	31,140		
(43) Patrick Henry Community College		2,400	2,400		
(44) Paul D. Camp Community College		12,800	12,800		
(45) Piedmont Virginia Community College		4,800	4,800		
(46) Rappahannock Community College		6,478	6,478		
(47) Southside Virginia Community College		11,027	11,027		
(48) Southwest Virginia Community College		400	400		
(49) Thomas Nelson Community College		8,000	8,000		

• for Current Operations Data

Figure 7 (continued-4)

Department and Program	Direct Support for Current Operations			Program Information	Comments
	1973 Actual	1974 Actual	1975 Budgeted		
Department of Health					
(1) Nursing (Undergraduate) and Dental Hygiene	57,063	66,300	70,700		(1,2) These funds are allocated to provide scholarships to nursing and dental hygiene students.
(2) Nursing and Dental Hygiene (Graduate)	35,437	33,200	35,300		
SUBTOTAL	92,500	99,500	106,000		
TOTAL DIRECT SUPPORT	92,500	99,500	106,000		

included in the survey, clearly differentiating between actual expenditures and budget allocations.

4. Mail Preliminary Tabulation to Selected State Official

Copies of these preliminary tables for the interview years (in our example, FY 1975 and FY 1976) will be mailed to the State official identified as knowledgeable data source for that table, accompanied by an introductory letter (Figure 8) and prior survey tables. Each such official will be requested to examine these tabulations for completeness and accuracy and to add them to the preceeding year's budgeted data.

For those States not receiving on-site visits, this task would be deleted, and secondary source data would represent the final tabulations.

5. Follow-up Non-Respondents

Two weeks after preliminary tabulations have been mailed, non-respondents will be contacted by telephone to take care of late responses and questions posed by State personnel. However, certain States (e.g., Texas) may be expected to encounter major problems that can only be resolved through provision of direct technical assistance. Accordingly, any such national data collection system should, at least until the States institute more detailed record-keeping systems, include an allowance for selected on-site visits to assist States in preparing required information.

During the first years of implementation, case studies will provide important insights into States that will require additional followups for clarification or other assistance necessitated by State record-keeping practices and dispersion of information sources.

6. Prepare Final Data Tabulations

Final tabulations and analyses can be prepared from State-supplied information, following the format of the FY 1973 - FY 1975 inventory. Comprehensive examination of State reports is necessary to assure completeness and thoroughness of detail. Some discrepancies will undoubtedly require resolution by telephone and mail techniques, particularly in regard to

Figure 8: SAMPLE TEXT OF LETTER REQUESTING STATE PROVISION OF HEALTH MANPOWER TRAINING DATA

The Bureau of Health Manpower of the Health Resources Administration, Department of Health, Education and Welfare has as one of its responsibilities the development and formulation of health manpower policies and programs; and in some instances, the financial support of such programs. To meet this responsibility, the Bureau periodically collects and reports information on the extent to which health manpower training is being supported by State governments. A copy of the information compiled and reported for the State of for the 1973, 1974, and 1975 fiscal years is enclosed for your information.

The Bureau of Health Manpower is currently updating this report to reflect actual expenditures for the 1974-75 fiscal year and appropriations for 1975-76. We would appreciate your reviewing the information so far collected by the Bureau from secondary sources relevant to your office's responsibilities and updating these to present detail comparable to that provided by your office for the preceding years.

A sheet defining the categories of support included within the study scope (glossary of terms) and a list of the health manpower training programs of concern to the Bureau are also enclosed for your information.

If you have any questions regarding the data requested, please feel free to contact (name, title, address, phone number).

We appreciate your cooperation in this important endeavor and look forward to receiving your response by (date).

Sincerely

application of State allocation formulas and in other areas requiring detail generally not reported by States.

• STEPS IN REPLICATING
(To include the 18 States not visited
the District of Columbia, and Puerto Rico)

1. Arrange Site Visits

Information compiled from secondary sources for the 20 sites will be reviewed to develop a list of appropriate offices to be visited. Telephone calls to those offices will identify individuals responsible for health manpower training data,and arrangements will be made to visit these persons and other knowledgeable State officials. Letters will then be sent explaining the purpose of the study and confirming appointments made by phone.

Every effort should be made to coordinate on-site visits by region to minimize cross-country travel.

2. Conduct and Report on Site Visit

Based on an analysis of State government organization and health manpower funding, it is estimated that an average of four man-days per State will be required for each site-visit. Visits to sites on the West Coast should be arranged so that research teams spend approximately two weeks at a time in the field for each four States visited.

Case studies will be prepared for each State visited, summarizing the type of programs supported, form and availablity of funding data, and individuals and offices contacted. Hard data collected in the field will be transcribed to copy-off sheets and verified for accuracy. Where detailed information is not available at the State level, allocation formulas will be applied to the reported data.

3. Follow-up State Personnel

Telephone and mail follow-ups are usually necessary to obtain some of the required in formation. Individuals who have indicated that data would be compiled and mailed after the site visit should be contacted and urged to

to submit the missing information. Follow-ups should be repeated until a satisfactory level of response is achieved, and until the project staff is certain that all existing information has been incorporated into the copy-off sheets.

4. Prepare Study Results

Detail tables for each of the 20 new sites will be comparable to those in the current INVENTORY. Four tables will be prepared for each State (institutional support, capital outlay, student aid, and direct support), showing expenditures for FY 1973 and FY 1974 and appropriations for FY 1975.

System design and list of contacts will be updated to incorporate the additional States and territories, resulting in a comprehensive national data network which can be regularly updated in future years.

Finally, a set of summary tables should be compiled for all 50 States, the District of Columbia, and Puerto Rico, comparable to those prepared originally for the 32 surveyed.

V
STATE SITE VISITS

* ALABAMA

The following agencies and offices were visited: (March 11-12, 1975)

* Executive Budget Agency
* State Board of Higher Education
  - Technical College Level Agency
  - Junior and Community College Level Agency
* Commission on Higher Education
* State Department of Public Health
  - State Comprehensive Health Planning Agency
* State Department of Mental Health
* State Nurses Training Board

Most State monies used primarily for postsecondary education come from the State sales tax and are put into the State Educational Trust Fund. In addition, according to estimates of the Commission on Higher Education, some 3 to 5 percent of total State income tax is appropriated for postsecondary education. Figure 9 shows governmental units that have relevant data.

Institutional Support

All State technical, junior and community colleges, senior colleges, and universities are funded on a biennial basis. Budget requests are made through their individual Boards of Regents to the State Executive Budget Agency, which transmits them to the Governor with recommendations.

Capital Outlay

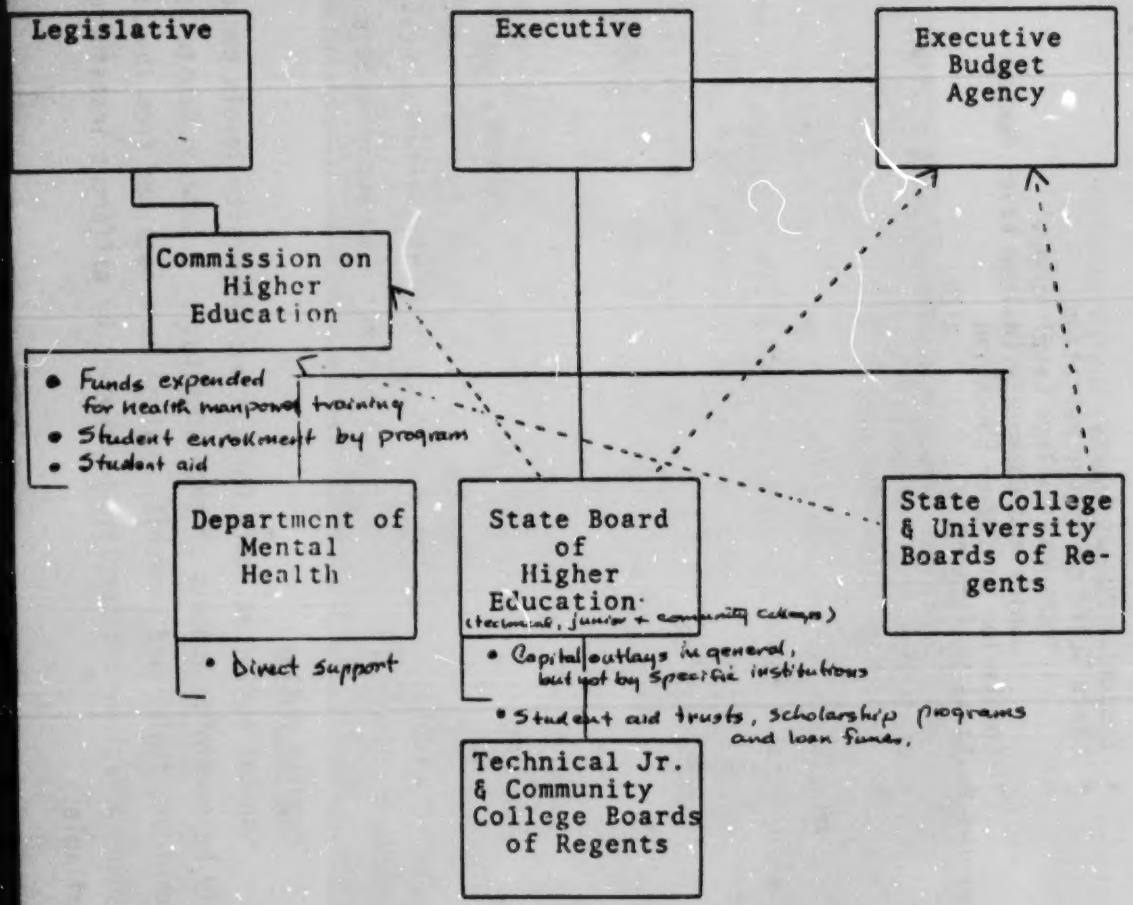
Capital outlay at State College and university levels can be identified only by examining budgets of each institution. Data on Capital outlays for technical, junior and community college were obtained from the State Board of Higher Education, but specific breakdowns by different institutions were not available.

Student Aid

Student financial aid is provided through special offices in the institutions attended. Since there is no central State office for this purpose, individual college and university budgets must be reviewed for this data. The

Figure 9

ALABAMA STATE ORGANIZATION CHART


Legislative
Executive
Executive Budget Agency
Commission on Higher Education
• Funds expended for health manpower training
• Student enrollment by program
• Student aid
Department of Mental Health
• Direct support
State Board of Higher Education
(technical, junior + community colleges)
• Capital outlays in general, but not by specific institutions
• Student aid trusts, scholarship programs and loan funds.
State College & University Boards of Regents
Technical Jr. & Community College Boards of Regents

State Board of Higher Education maintains records of student aid monies in specific trusts, scholarship programs, and student loan plans for technical, junior, and community colleges.

Direct Support

The State Department of Mental Health is the only agency that provides direct support for the training of health manpower, via a "Special Mental Health Fund" supported by monies derived from 11 different tax sources. These funds go to the Auburn Psychology Department and to the psychological clinic at the University of Alabama.

* ARKANSAS

The following agencies and offices were visited: (April 11-12, 1975)

* Joint Legislative Audit Committee
* Department of Higher Education
* Comprehensive Health Planning Agency
* Department of Health
* Department of Finance and administration, Budget Division

No single centralized State-level agency has detailed information available on health manpower education, particularly as regards financing. Various imputation measures were utilized where data were not directly available. Figure 10 presents governmental units that have relevant data for this project.

The State of Arkansas supports 11 programs in health manpower education at 14 institutions of higher education, coordinated by the Department of Higher Education. No other agency supports, directly or indirectly, any training in health professions with State funds. The Department of Health supports either short-term (inservice) training programs or others that utilize Federal funds exclusively.

Although the Budget Division of the Department of Finance and Administration prepares two published budget reports - The Budget Manual and The Annual Operations Plan - neither contain data useful for this study. Only the capital construction funding data was helpful.

The Comprehensive Health Planning Agency is currently under contract to the Bureau of Health Resources Development, DHEW, to conduct a study of health manpower requirements and exisiting educational programs for training health workers, to be completed in November 1975. Financial and program data will be obtained in this study. This system will be implemented and maintained by the Arkansas Health Statistics Center.

Institutional Support

For details, see Table H.1.For institutions other than the Arkansas Medical Center, which is entirely involved in health manpwer education, approximations of funds allocated to the health professions were calculated by basing them upon the proportion of degrees in health-related occupations of the total

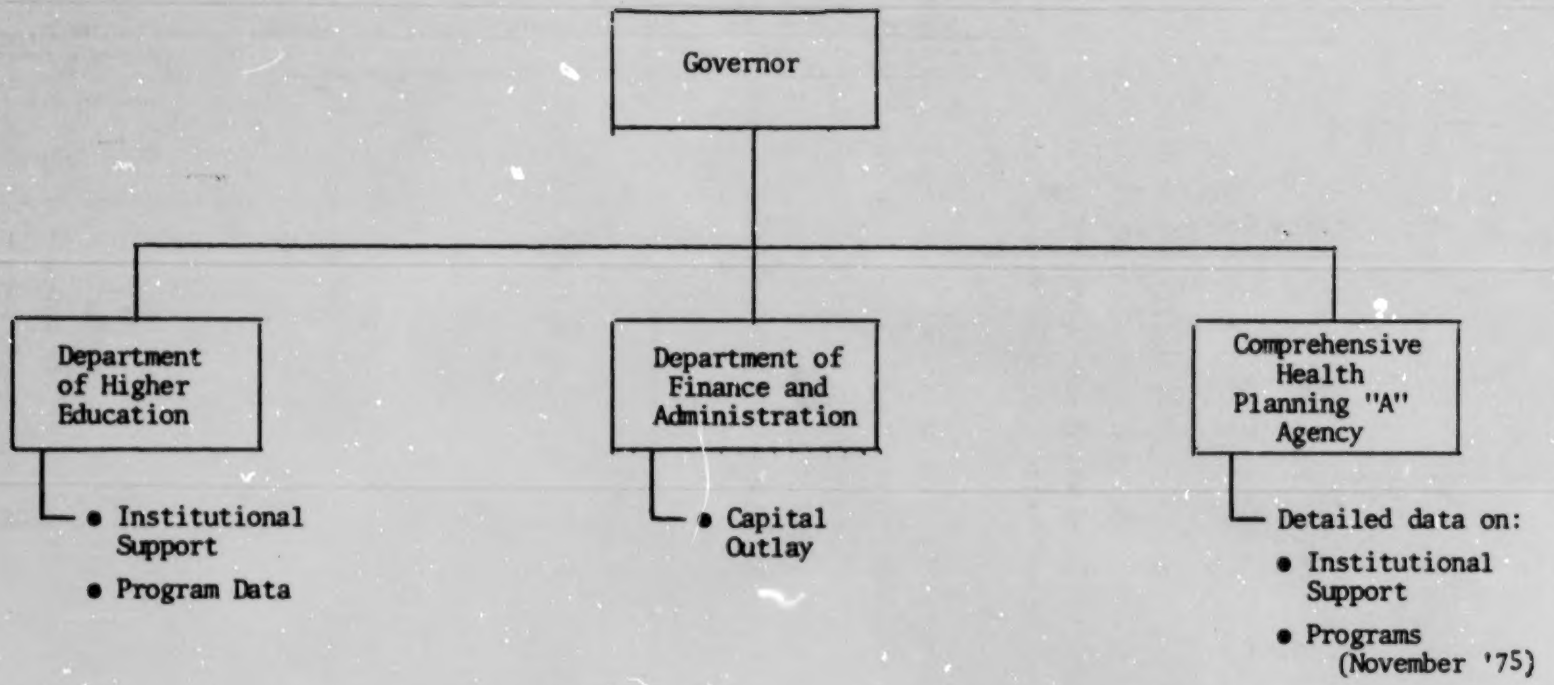


Figure 10 : ARKANSAS GOVERNMENTAL UNITS THAT HAVE DATA RELEVANT TO THE PROJECT REQUIREMENTS

Table H.1

SUMMARY OF ESTIMATED STATE FINANCIAL SUPPORT FOR HEALTH MANPOWER EDUCATION PROGRAMS, ARKANSAS

Institutional Support	FY 73 Received	FY 74 Recommended	FY 75 Recommended	No. of Degrees Granted - 1972-73
1. University of Arkansas Medical Center	$7,973,593	$10,643,796	$11,642,328	212 - Total
University Hospital	4,263,424	5,748,402	6,239,556	
Teaching Unit	3,710,169	4,895,394	5,402,772	
School of Medicine[1]	2,905,804	3,834,072	4,231,451	99 med., 7 med. tech., 12 x-ray tech., 5 cyto technol
School of Nursing	273,440	360,792	398,185	9 M.A.
School of Pharmacy	473,800	577,656	687,527	49 B.A.
School of Dental Hygiene	84,221	111,125	122,642	28 Cert., 3 B.A.
Graduate School	8,904	11,749	12,967	
2. University of Arkansas, Fayetteville[2]	148,000	202,000	227,000	25 Nursing (A.A.), 2 pre-medical science B.A.
3. University of Arkansas, Little Rock[2]	270,000	370,000	460,000	2 Dental Hygiene B.A., 1 Medical Records Sc. B.A., 6 med. tech., 1 pre-med sc., 2 radiology, 34 nursi
4. University of Arkansas, Monticello[2]	205,000	250,000	280,000	1 med. tech., 2 pre-med sc., 29 nursing (AA)
5. Arkansas State University[2]	418,000	503,000	570,000	4 med. tech., 87 nursing (AA)
6. State College of Arkansas[2]	399,000	510,000	570,000	17 nursing (M.A.), 61 nursing (B.A.), 14 Phy.Therapy(4 Manual Arts Therapy (B.A.)
7. Southern State College[2]	206,000	224,000	252,000	4 med. tech., 26 nursing (A.A.)
8. Arkansas Polytechnic College[2]	50,000	60,000	69,000	2 Medical Records Sc. (B.A.), 9 med. tech.
9. Phillips County Community College[2] Westark Community College	564,000	624,000	685,000	108 nursing (A.A.), 27 nursing (L.P.N.), 4 med. lab tech. (A.A.)
10. Henderson State College		50,000	0	0
11. State Vocational Education Support	1,308,048	1,602,509	N.A.	1,140 nursing (A.A.), 631 nursing (L.P.N.), 65 dental hygiene, 30 nursing assistant, 18 med. lab asst., 24 other
12. Local Community College District Support	564,000	624,000	685,000	(see 9 above)
TOTAL	$12,305,641	$15,663,305	$14,870,328	

[1]Allocations for the various units of the Arkansas Medical Center based on FY 72 actual expenditures for each unit.

[2]Allocations based on the percent of students receiving degrees in the health professions.

granted by the University. About 22 percent of all State support for health manpower education was channeled through undergraduate institutions; the remainder was used to fund the Medical Center (including the University Hospital).

The Division of Vocational, Technical and Adult Education administers vocational programs at the postsecondary level, which are supported by both Federal and State monies. Some 15 area vocational schools, two community colleges, six 4-year institutions, and the University of Arkansas Medical Center receive such funds. Detailed funding by institution is not available. However, estimates have been calculated based on percentage of students enrolled in health occupations.

Local support is provided through the community college districts in Arkansas. Presently, the two established community colleges receive one-half of their support from local sources, the other half from the State.

Capital Outlay

Information on capital outlay was provided by the Budget Division. Arkansas utilized a unique method for financing capital construction projects during the past biennium. All capital projects were funded from the accumulated surplus from current revenues. Usually, capital construction projects are financed directly from current revenues or from debt funding, without waiting for a surplus to accumulate. Each of the institutions has authority to issue bonds, which are financed from student fees or from income from auxiliary enterprises. No State monies are used to support or underwrite the issuance of institutional bonds.

For the current biennium, all approved projects were funded. As noted in Table H.2,most health related capital projects were funded at the Medical Center. State monies for additions to the Power Plant and renovation of the Old Education Building are matched by Federal monies derived from the General Revenue Sharing Fund. The State uses this Federal source extensively for capital construction projects.

Student Aid

Student aid is administered directly by the institutions of higher education in the State. No State agency administers any type of aid program for

Table H.2

SUMMARY OF STATE FINANCIAL SUPPORT FOR CAPITAL OUTLAY PROJECTS FOR HEALTH MANPOWER EDUCATION

Capital Outlay	FY 73 Received	FY 74 Recommended
1. Medical Center	$12,108,000	$6,041,000
Education Building - Medicine	5,130,000	
Hospital Renovations	5,800.000	
Outpatient/Emergency Room Renovations	1,178,000	
Education Building - Pharmacy		1,710,000
Education Building - Nursing		1,710,000
Education Building - Health Services Library		2,040,000
Additions to Power Plant		232,000
Old Education Building - Renovations		349,000
2. State College of Arkansas Health Service Building		1,034,400
TOTAL	$12,108,000	$7,075,000

Table H.3

STATE SUPPORT FOR OUT-OF-STATE STUDENT AID

Student Aid	FY 73 Received	FY 74 Recommended	FY 75 Recommended
Southern Regional Education Board -			
Dentistry	200,000	347,510	347,510
Veterinary Medicine	57,600	90,000	90,000
Non-SREB -			
Dentistry	100,000	104,500	110,000
Veterinary Medicine	20,000	18,530	42,830
Optometry	20,000	30,000	60,000
TOTAL	377,600	590,540	650,340

110

resident students, nor are data compiled centrally for the amount and number of students receiving aid.

For out-of-State students, however, line item entries are made in the Annual Operations Plan indicating the amount of State support. These allocations are made according to a formula, based on the number of students admitted to out-of-State institutions (see Table H.3).

Direct Support

Only agencies of higher education are directly involved in the support of health manpower education. Agencies such as the Department of Health support several types of training programs, but all are either of short duration or supported entirely with Federal funds.

* CALIFORNIA

The following agencies and offices were visited: (May 1-5, 1974)

* California Post Secondary Commission
* California Community Colleges
* State Scholarship and Loan Program
* Division of the Budget, Higher Education System
* Division of Finance, Higher Education System
* Department of Health
* University of California

Of the States visited for the Phase 1 feasibility study, California is the largest in terms of health manpower programs and total expenditures supporting such programs. However, the problems of availability of data are similar to those encountered in other States.

The California Community College System has designed and will implement a new budgeting and reporting procedure effective in FY 1974-75, which will produce financial and program data directly applicable to the requirements of the BHRD inventory.

Figure 11 depicts the organizational units and the catagory of relevent information each can provide.

Institutional support data are found in each of the three components of the higher education system (University of California, California State University and Colleges, and California Community Colleges), which are considered separate agencies. For purposes of gathering institutional support data, the Department of Finance's Budget Office is of limited value. Data for capital outlay, student aid, and direct support are found in the Budget Office, State Scholarship and Loan Commission, and Department of Health, respectively.

* Institutional Support

* University of California

Since the University separates the health sciences programs in its budget documents, the funding level for these programs is readily available. In the 1974-75 financial analysis, the data are broken out by program area but not by campus. However, the 1972-73 campus financial schedules detail expenditures by department, so that it has been possible to use these to allocate across campuses for FY 1974.

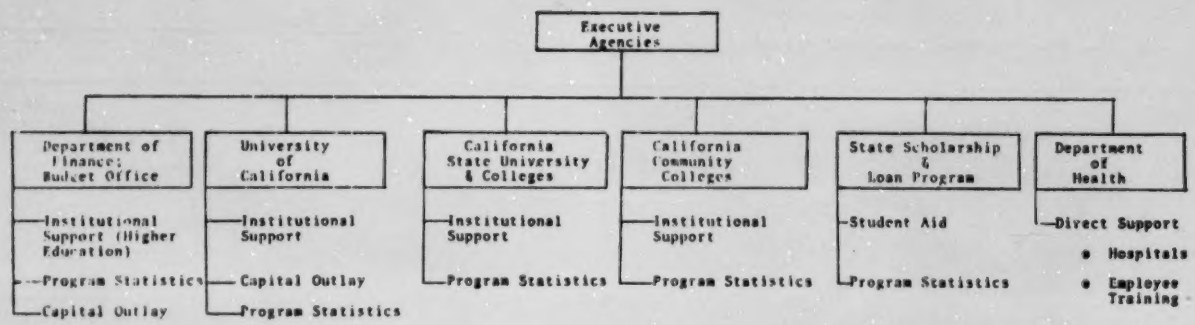


Figure 11: STATE OF CALIFORNIA GOVERNMENTAL UNITS THAT COLLECT OR CAN COMPILE DATA RELEVANT TO PROJECT REQUIREMENTS

Table I.1: UNIVERSITY OF CALIFORNIA - INSTITUTIONAL SUPPORT

HEALTH TRAINING PROGRAM	STATE FUNDS FY 73	STATE FUNDS FY 74	HEADCOUNT ENROLLMENT FY 73	HEADCOUNT ENROLLMENT FY 74
University of California				
Instruction: Total	66,320,059	70,990,564		
Berkeley				
Optometry	329,434	359,860	234	240
Public Health	1,106,366	1,051,093	281	313
Davis				
Medicine	4,965,757	5,202,105	632	665
Veterinary Medicine	3,133,855	3,408,600	471	486
Teaching Hospital (Med.)	2,618,461	2,970,264		
Teaching Hospital (Vet. Med.)	710,407	731,250		
Irvine				
Medicine	3,620,367	3,839,361	700	710
Teaching Hospitals	1,246,246	1,433,716		
Los Angeles				
Dentistry	2,148,973	2,237,256	419	449
Medicine	10,557,587	11,003,366	1,805	1,883
Nursing	545,183	555,785	250	258
Public Health	866,300	843,009	425	425
Teaching Hospitals	5,219,507	5,890,495		
San Diego				
Medicine	5,556,611	5,856,906	624	660
Teaching Hospital	2,963,347	3,384,376		
San Francisco				
Dentistry	2,338,186	2,466,837	418	437
Medicine	10,456,951	11,044,545	1,431	1,444
Nursing	1,263,611	1,305,449	545	560
Pharmacy	1,392,353	1,357,523	422	443
Teaching Hospitals	5,280,637	6,048,768		
Organized Research: Health Sciences				
University-wide	1,563,000	1,563,000	N/A	
Organized Activities: Health Sciences				
University-wide: Total	N.A.	15,785,200		
Neuropsychiatric Institutes	N.A	14,731,650	N/A	
Dental Clinics	N.A.	667,850		
Other (Vivaria, etc.)	N.A.	385,700		

All revenues are classified as General or Restricted Funds. Approximately 95 percent of the General Fund is composed of State appropriations; the remainder is generated by the University or other sources. Restricted Funds are primarily from non-State revenues. The majority of restricted funding to health profession schools at the University is provided by the Federal Government.

Over $66 million of State funds were expended for instruction in the University programs during FY 1973, in the five schools of medicine, two schools of dentistry, two schools of nursing, two schools of public health, one school of optometry, one school of veterinary medicine, one school of pharmacy, and in teaching hospitals associated with five of the campuses. (See Table I.2).

The University's reporting system uses the NCHEMS classification structure, which provides for reporting of expenditures in six program areas: research, public service, academic support, student services, and institutional support. Health services is shown separately under instruction, research and academic support; support for teaching hospitals and clinics is reported under the latter category.

* California State University and Colleges (CSUC):

The CSUC does not have a school or major organizational unit that trains individuals in the major health professions, but it does have training programs in various allied health occupations.

CSUC uses a program budgeting and reporting procedure comparable to WICHE-NCHEMS program classification structure, but the budget is not based on detailed program categories, so that at this time, CSUC is not able to report expenditures by major discipline within the primary program of instruction however, it is possible to make estimates of State support for these programs. Such calculations are now under way and when completed will provide an addendum to this report.

* Community Colleges:

California was one of the first States to establish a system of community colleges, which has expanded greatly during the past two decades.

With the establishment of the Board of Community Colleges in 1968, the State has attempted to establish uniform financial and reporting systems. Currently, however, the Board does not compile financial data in format needed to meet the requirements of this inventory. However, they can provide the number of full-time equivalent (FTE) students for each health occupation program by community college scholarship. an estimate of the average cost/FTE for health occupation training, and a percentage distribution of the cource of funds for each district. From these data, a good estimate of State and local support for health manpower training on the community college level can be made. A new budgeting and reporting procedure is to be implimented in July 1974. When this information becomes available, a second addendum will be added to this report.

Capital Outlay

The State budget document provides a listing of each capital construction project for all levels of higher education, identifying by title most of the health-related projects, and the level of funding for each fiscal year, by project. As shown in Table I.3, the State University and Colleges, and the Community Colleges receive minimal funding for health-related capital construction projects. However, the University of California is involved in an extensive capital outlay program, with the major portion of the monies derived from the Health Sciences Bond Fund.

In its own budget documents, the University of California presents detailed information on this program, identifying each capital construction project by title, as for either "general campus" or "health sciences", by source of funds. Given also is prior funding, funding for the current year, proposed funding for the next fiscal year, and 5-year projections of total project funding. This information is available for each campus, as well as for the entire University.

Student Aid

The California State Scholarship and Loan Commission now administers six active programs of student financial assistance, the largest of which is the State Scholarship program, which in FY 1973-74 comprised funds estimated at $28.8 million, approximately 74 percent of their total expenditures.

Table I.2: SUMMARY OF STATE SUPPORT FOR HEALTH-RELATED CAPITAL CONSTRUCTION PROGRAMS - CALIFORNIA

	FY 73	FY 74	FY 75
University of California			
All Campuses			
Health Sciences	21,274,700	70,489,000	52,833,000
Berkeley	0	219,000	392,000
Davis	0	22,285,000	7,446,000
Irvine	1,467,000	7,656,000	19,622,000
Los Angeles	6,774,000	9,996,000	1,110,000
San Diego	4,756,000	11,804,000	2,600,000
San Francisco	8,277,700	18,387,000	16,594,000
Riverside	0	42,000	1,269,000
University-wide	0	100,000	3,800,000
California State University and Colleges			
Humboldt	215,000	4,325,000	0
Northridge	0	0	146,000
Community Colleges			
Cerritos	0	1,394,600	0
Pasadena	0	223,600	0

Table I.3: CALIFORNIA STUDENT AID SUPPORT FOR TRAINING IN THE HEALTH PROFESSIONS

PROGRAMS CATEGORY	STATE FUNDS ACTUAL FY 73	STATE FUNDS ESTIMATE FY 74	PROGRAM STATISTICS FY 73
Graduate Fellowships Program			
Dentistry	87.2	109.7	No. Students = 31
Medicine	203.2	257.3	No. Students = 107
Allied Health	25.7	25.0	No. Students = 19
Occupational Educational Grant Program (Health Occupations)	N/A	142.5	No. Students = 164
Medical Student Contract Program	663.0	1224.0	Estimated No. Students = 90
Special Clinical Internship Program in General Practice	502.2	503.0	(To be supplied)

However, scholarship awards cannot be related to major field of study.

The Commission has two programs that are specifically for health manpower training: the Medical Student Contract Program and the Special Clinical Internship Program in General Proctice. State funds for these programs are presented in Table I.3)

In addition, the Graduate Fellowships Program provides fellowships for individuals in the fields of dentistry, medicine, and allied health, while the Occupational Education Grant Program provides funds for numerous allied health occupations. These grants are for students training in community colleges, hospital schools, public four-year colleges, and private schools.

Direct Support

Effective July 1, 1973, the three State agencies dealing with the various health care and health delivery functions in the State of California - the Department of Mental Hygiene, Health Care Services, and Public Health - were consolidated into one agency, the Department of Health. Prior to this time, the Department of Mental Health had primary administrative responsibility for funds allocated for health manpower education. This responsibility now belongs to the Health Administrative System Program, Department of Health.

In California, the Department of Health is somewhat unique in that the manpower training programs are maintained by the Department per se and are not the responsibility of the State hospitals themselves. As far as funding of such programs is concerned, there are no published or internal working documents explicitly detailing the nature of these programs and the amount of State funds used in their support. Eight current programs and the funding for each were identified through discussions, however, and are shown in Table I.4.

Table I.4: CALIFORNIA DEPARTMENT OF HEALTH PROGRAMS FOR HEALTH MANPOWER EDUCATION AND TRAINING

Program	State Funds (000's) FY 72-73	State Funds (000's) FY 73-74	Program Description
Psychiatric Technician Program	400.0	1000.0	Support to State hospitals and contract with Community Colleges (Number students not available)
Psychiatric Residency Training Program	2000.5	2000.5	Support to State hospitals and contract with university medical schools (approximately 60 residents per year)
Public Health Residency Program	(None)	26.0	State pays stipend for two positions
Pediatric Residency Training	39.0	39.0	State pays approximately 3 stipends per year
Psychology Intern Training	52.0	52.0	State pays approximately 4 stipends per year
Social Worker Educational Leave Program	25.0	25.0	State pays salary and tuition reimbursement for State hospital employee while attending Masters program.
In-House Hospital Administration Program	36.0	36.0	Approximately 6 students per year
Masters Program in Public Health	35.0	35.0	State pays approximately 10 stipends per year

* COLORADO

The following agencies and offices were visited: (April 29-30, 1974)

* Executive Budget Office, Department of Administration
* Colorado State Board for Community Colleges and Occupational Education
* Western Interstate Commission for Higher Education
* Colorado Commision on Higher Education
* Division of Comprehensive Health Planning, Department of Health
* Division of Mental Health, Department of Health

Currently, in terms of the State's "data collection and reporting system", there is no one agency or organizational unit that collects and compiles all the information relevant to our project. Sources of data on institutional support to higher education are found in three seperate units, (Budget Office, Commission on Higher Education, and State Board of CC and Occupational Education). However, four organizational units within the State government have data relevant to the project requirements, as shown in Figure 12.

Institutional Support

Table J.1 shows the amount of State funds (FY 73 actual and FY 74 estimated) supporting institutions of higher education that could conduct training in health occupations.

The University of Colorado Medical Center has programs in the areas of Medicine, Nursing, Dentistry, each representing a separate organizational unit within the university. The State appropriates funds specifically to each. Within the school of medicine there are four types of students (medical, graduate, allied health residents and fellows). Institutional expenditures are reported in most instances, by major object categories (e.g. salaries, supplies, etc.) which "cut across" student categories and levels of training, and therefore are not directly useful in categorizing State funds by level of training provided.

The University of Colorado Medical Center also operates two teaching hospitals (general and psychiatric) and State funds are used for both teaching and health care. At present there is no way to estimate the proportion of funds allocated for each.

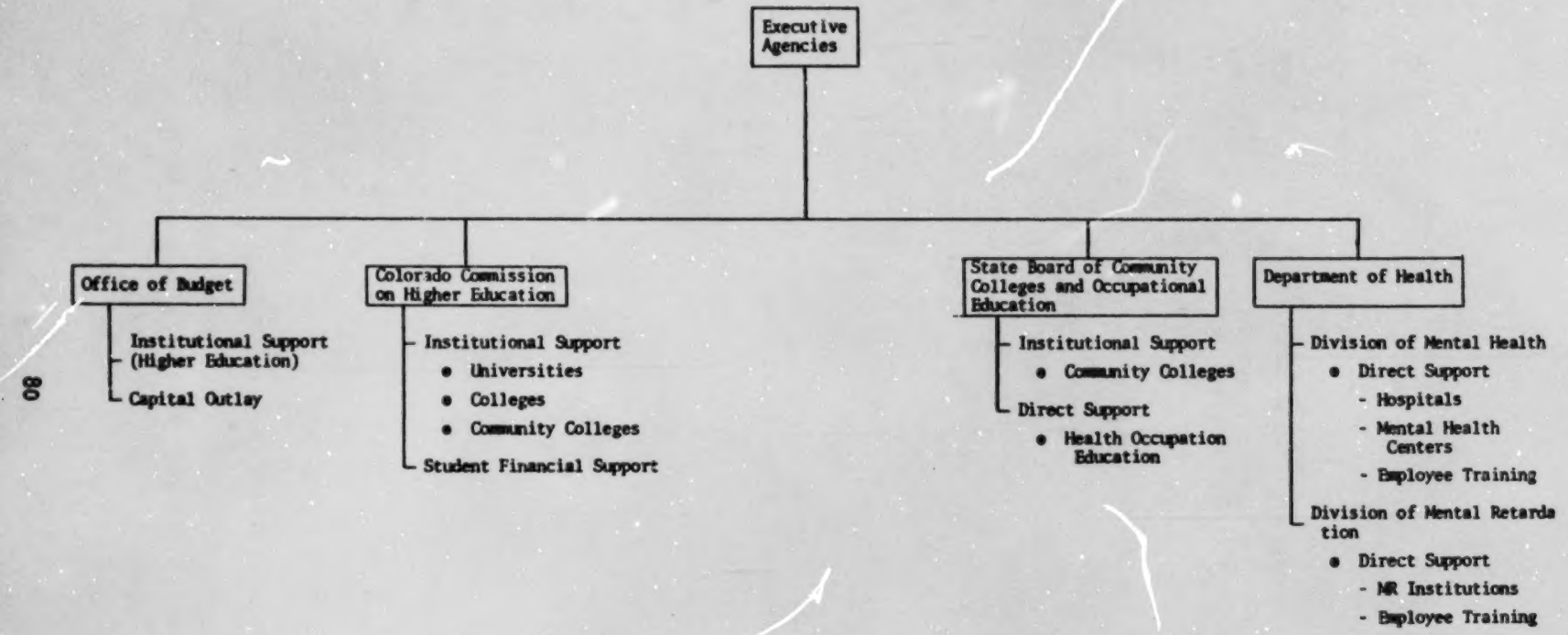


Figure 12: STATE OF COLORADO GOVERNMENTAL UNITS THAT COLLECT OR CAN COMPILE DATA RELEVANT TO PROJECT REQUIREMENTS

Table J.1

STATE OF COLORADO SUPPORT TO HEALTH MANPOWER EDUCATION

FINANCIAL SUPPORT CATEGORIES	FY 73 FUNDS (000's) (Actual)	FY 74 FUNDS (000's) (Estimated)	PROGRAM STATISTICS FY 72-73
Institutional Support			
University of Colorado Medical Center - Denver			
• School of Medicine	4030.7	6002.6	Medical students - 496; Allied Health - 110; Graduate Students - 125; Residents and Fellows - 375.
• School of Nursing	608.7	768.2	Undergraduate - 252; Graduate - 124.
• School of Dentistry	174.7	366.2	No students FY 73 (new school)
• Colorado General Hospital (Teaching)	5095.9	8218.5	N/A
• Colorado Psychiatric Hospital (Teaching)	1263.4	2147.9	N/A
University of Colorado, Boulder			
* • School of Pharmacy	367.7	424.1	Undergraduate Students - 128; Graduate Students - 9.
* • Nursing	295.2	339.9	Undergraduate Students - 88; Graduate Students - 8
Colorado State University			
* • Vet. Medicine	2144.4	2144.4	N/A
State Colleges			
* Adams State College	N/A	N/A	N/A (Data not submitted)
* Metropolitan State College	451.4	603.5	Health Professions - 0 Students; Health Technologies - 249 students.
* Southern Co. State College	690.7	846.3	Health Professions - 11 Students; Health Technologies - 254 Students.
University of Northern Co.	N/A	N/A	N/A (Data not submitted)
Community Colleges			
* AIMS (operated by School District)	78.7	-	Health Technologies - 75 students
* Arapahue	8[illegible].7	120.3	Health Technologies - 107 students
* Community College of Denver	372.4	474.2	Health Technologies - 490 students
* El Paso	95.7	128.0	Health Technologies - 113 students
* Mesa (operated by School District)	110.3	107.2	Health Technologies - 105 students
* Northeastern (Operated by School District)	46.2	-	Health Technologies - 44 students
* Rangely (Operated by School District)	40.9	-	Health Technologies - 39 students
* Trinidad	35.8	36.9	Health Technologies - 37 students
* Morgan	34.1	24.7	Health Technologies - 29 students
Capital Outlay			
(TO BE SUPPLIED)			
Student Aid			
University of Colorado Medical Center	235.9	273.6	Students - 330
Health Professions and Nursing loan matching funds	38.3	50.5	N/A
Dental Grant (WICHE) (Out-of-State students)	50.4	68.0	Students - 21
Direct Support			
State Hospitals Mental Health Centers	TO BE SUPPLIED		
Vocational Education (Health Occupations)	100.0		N/A (Data not submitted)
Health Manpower Research			
None identified			
TOTAL SUPPORT			

Total appropriation for each hospital is the best estimate presently available on State support to graduate medical education. The University of Colorado at Boulder (different campus than the Medical Center) conducts training in the fields of Pharmacy and Nursing. The Commission on Higher Education provided the number of full-time equivalent (FTE) students in the pharmacy and nursing programs. From this, and the cost per FTE (obtained from the Governor's Budget), it was possible to make a reasonable estimate of State support for these programs. (For methodology see Table J.2)

Published documents for the Colorado State Colleges do not show funds by program categories (health, engineering, science, etc.). The Commission on Higher Education does, however, collect FTE enrollment by program category using the HEGIS taxanomy. Using the preliminary allocation methods, we were able to allocate State funds to the program classification "Health Professions", (allied health programs at the bachelor's and graduate level, not including Professional, Nursing, and Pharmacy) and "Health Technologies" (post secondary training of less than four years).

Community colleges operate under two systems in the State of Colorado. The State operates seven community colleges, and five community colleges are operated by local school districts. For the former, FTE enrollment for "Health Technologies" was provided by the Commission on Higher Education. For the latter, FTE enrollment for health occupations was provided by the Division of Occupational Education. Local district community colleges receive a State grant of $1,050 per FTE vocational student, so it was possible to estimate State funds going to local district community colleges. State-operated community colleges recieve funds appropriated by the State legislature, whereas the local district community colleges receive grants that are administered by a State agency. The differences obviously impact upon the data collection methodology and procedures for estimating State support.

Capital Outlay

The Student Aid Program is administered by the Colorado Commission on Higher Education, which allocates approximately $10 million per annum to the various higher education institutions within the State. They, in turn,

Table J.2

PRELIMINARY ALLOCATION METHODOLOGY*

ALLOCATION METHODOLOGY:

$$SS = \left[(FTE \times CFTE) + 1.5\ (FTE \times CFTE)\right] \times PSI$$

where:

SS = estimated state support

FTE = Number Full Time Equivalent Students in health training

CFTE = Average Instructional cost per FTE for entire university

1.5 = Overhead cost factor

PSI = Percent of Income to University from the State

*An estimate of State support to health manpower training is calculated using the number of full time equivalent (FTE) students enrolled in the health professions, as defined by the HEGIS taxonomy. This figure is multiplied by the instructional cost/FTE for all disciplines or major fields of study. Next, an overhead factor is added, based on data from the Colorado Commission on Higher Education. Finally, the resulting total cost/FTE for health professions is multiplied by State support (expressed as a percent of total support) to arrive at the estimate.

award scholarships based upon need, following general guidelines developed by the Commission. Data showing the amount of scholarship funds going to health education are not available from the Commission. However, data were available on the amount of student aid funds going to the University of Colorado Medical Center. State matching funds, as part of the Federal government's "Health Profession and Nursing Loan Program", and the State's contribution to WICHE, are included in Table 8 under the "student aid" category.

Direct Support

Two units within the State government have information on direct financial support to health manpower training: The Division of Mental Health, Department of Health, with administrative responsibility for State mental hospitals and mental health clinics; and the Division of Occupational Education, State Board of Community Colleges and Occupational Education, which is concerned with enrollment in health occupations for locally operated community colleges. Data were provided showing the amount of funds, type of program, and training institution.

Health Manpower Planning and Research

Currently there are no State appropriations specifically designated for health manpower planning and/or research.

* CONNECTICUT

The following agencies and offices were visited: (April 17-19, 1975)

* Board of Trustees for the State Colleges
* Connecticut Department of Health
* University of Connecticut Health Center
* School of Allied Health Professions University of Connecticut
* Board of Examiner's for Nursing
* Board of Trustees for State Technical Colleges
* Connecticut Institute for Health Manpower Resources, Inc.
* Division of Vocational Education, Departmant of Education
* Department of Education
* Board of Trustees for Regional Community Colleges
* State of Connecticut, Budget Division

Data concerning the State college and community college systems was available from the boards of trustees of these systems. The most detailed expenditure data was provided by the University of Connecticut Health Center. Expenditure data for the other systems were not always available by health program area or by year. The executive budget office provided contract information by community college and by program for the clinical aspects of training allied health professionals.

Institutional Support

In Connecticut, there are seven systems that provide education and training for health manpower, these are:

* University of Connecticut Health Center
* University of Connecticut
* State Colleges
* Community Colleges
* Private Colleges and Universities
* Hospitals
* Vocational-Technical Colleges

The private colleges and universities receive no State support for current operations. Hospitals receive no operational support for academic training programs. Contracts between community colleges and hospitals to provide clinical experience and training to students enrolled in allied health professional programs in these colleges are totally financed by the State funds.

The University of Connecticut, including the Health Center, the State college system, and the community college system are all funded in the same manner. Budget requests are submitted to the Board of Trustees and then to

the State legislature. The State college system is currently developing a program budgeting system that will be implemented for fiscal year 1976, based on anticipated enrollment and anticipated number of FTE teaching positions.

The School of Allied Health at the University of Connecticut has divided its 1974-1975 approximation on the basis of requests from department heads, expenditure data by program is therefore available.

Vocational-Technical Colleges are concerned primarily with vocational training at the high school level. Some post-high school allied health programs are administered through the Connecticut Department of Education, but it was not possible to distinguish between Federal and State support for these programs.

Capital Outlay

Two forms of capital outlay are distinguished by State-supported educational institutions in Connecticut: equipment purchases for existing facilities (funded by State appropriations from general revenues), and expenditures for land and improvements to land, new construction, improvements to buildings, and equipment purchases for new or remodeled facilities financed by State bond funds.

Information on these categories was available only for the University of Connecticut Health Center. Only data on capital outlay for equipment purchases was available for State and community college systems.

Student Aid

The Connecticut State Scholarship Commission establishes policies and procedures governing State scholarship funds appropriated by the General Assembly and the Commission on Higher Education administers the program. However, no date on academic programs of recipients are available.

State funds are made available to the Connecticut Board of Examiners for Nursing through the Connecticut Department of Health for scholarships for basic and post-basic programs. Grant recipients are expected to become licensed by, and to work in, the state of Connecticut or to reimburse the Board if they do not complete the course of study. Data were available for

fiscal years 1973, 1974, and 1975.

The Connecticut Student Loan Foundation guarantees loans to Connecticut residents for educational programs throughout the United States. as matching funds for Federally-financed student loans. Information concerning loans for both the community college system and the State college system was available from the Governor's Budget.

Other State scholarships are available, but data concerning the recipients' courses of study are not available.

Direct Support

The bulk of the direct support for health manpower training programs in Connecticut consist of in-service training programs. The Department of Health, the Office of Mental Retardation, and the Department of Mental Health all offer educational and training programs for employees. In addition, a scholarship program for nurses is administered through the Department of Health.

* DELAWARE

The following agencies and offices were visited: (March 20-21, 1974)

* Department of Finance
* Office of the Governor, Budget Office
* Department of Public Instruction
* Delaware Technical & Community College
* Department of Health and Social Services
* Office of the Governor, Office of State Planning
* University of Delaware

The State of Delaware supports only a small number of programs related to health manpower education in a limited number of institutions. No State level agency collects information of the scope and detail required for this study, and there is no Department of Higher Education. Delaware is one of three States without this department.

The University of Delaware, which offers many of the programs supported by State funds is legally considered a private institution, and therefore does not provide detailed financial data to the State. These data must be obtained from the University directly.

Delaware has maintained the traditional line item, object category classification system; no program budgets are developed at the State level. Thus, published budget documents are of limited usefulness. Field interviews made possible identification of a number of alternative sources that can improve immeasurably on the limited data contained in the budget.

Institutional Support

As shown in Table K, three institutions offer programs in the health professions. Other institutions of higher education in the State either offer no such programs (Delaware State College) or are private institutions not recieving State support (Wesley College).

The Delaware Institute of Medical Education and Research (DIMER), a small administrative/planning organization, was established to support medical education, by encouraging medical graduates to remain in-State, serving primarily as a conduit of State funds to support students enrolled in medical programs. The University of Delaware's Division of Accounting provides institutional support data for both the University and DIMER.

Table K: SUMMARY OF STATE FINANCIAL SUPPORT FOR HEALTH MANPOWER EDUCATION PROGRAMS, DELAWARE FY 1973 and FY 1974

Health Manpower Support Programs	Expenditures FY 73	Appropriations FY 74	Program Description
Institutional Support			
1. University of Delaware[1]	167,696	209,504	
College of Nursing	153,870	187,870	718 students
Division of Health Sciences	13,826	21,634	168 students
[2]	-	-	
	-	-	
	-	-	
2. Delaware Institute of Medical Education and Research	1,800,000	2,150,000	
University of Delaware	253,600	281,590	
Jefferson Medical College, (Philadelphia)	420,000	596,550	20 entering students/year
Wilmington Medical Center	1,014,400	1,126,360	Internship program
Delaware Academy of Medicine	112,000	145,500	
3. Delaware Technical and Community College	125,447	168,998[3]	
R.N.	13,123	49,736	
L.P.N.	70,185	55,464	
Dental Assisting	31,999	46,965	
Inhalation Therapy	10,140	16,833	
SUBTOTAL	2,093,144	2,528,502	
Capital Outlay			
1. University of Delaware			
Health Finances Building Planning		50,000 (appropriated in Fy 72)	
2. Delaware Institute for Medical Education and Research		None identified	
3. Delaware Technical and Community College		None identified	
SUBTOTAL		50,000	
Student Aid			
1. University of Delaware	48,840		
College of Nursing	39,220[4]	N.A.	
Division of Health Sciences	9,620[5]	N.A.	
2. Delaware Institute for Medical Education and Research (See institutional support)			
3. Delaware Technical and Community College	N.A.	N.A.	
SUBTOTAL	48,840	N.A.	
Direct Support			
Department of Health and Social Services			
Delaware State Hospital Psychiatric Residency Program[6]	296,696	360,213	
SUBTOTAL	296,696	360,213	
TOTAL	2,438,680	2,938,715	

FOOTNOTES FOR TABLE K

1/ Computed: Total support X 34.1% = State support.

2/ Program breakout being provided.

3/ Actual FY'74 expenditures for seven months, inflated to provide 12-month estimate.

4/ Computed: Total State Student Aid X $\frac{\text{Nursing Sciences}}{\text{Total Enrollment}}$ = State Student Aid for Nursing Students

5/ Computed:

Total State Student Aid X $\frac{\text{Health Sciences Enrollment}}{\text{Total Enrollment}}$ = State Student Aid for Health Sciences Students

6/ State funds for all training programs; only one (psychiatric residency) within scope of study.

Two health manpower support programs are offered by the University: the College of Nursing and the Division of Health Sciences; DIMER has four interrelated programs. DIMER provides additional funds to the University, to support its program in the Health Sciences; to Jefferson Medical College, to support 20 interning students each year; to Wilmington Medical Center, to provide internships for Jefferson graduates; and to the Delaware Academy of Medicine, for planning and research.

State-operated Delaware Technical and Community College, offers 4 programs: R.N., L.P.N., Dental Assisting, and Inhalation therapy. Financial information is available from the College's fiscal office.

Annual reports are the most available source of program information on the number of students enrolled, number of graduates, etc., by program. More detailed data must be obtained directly from the appropriate department or division of the institution.

Capital Outlay

The Office of State Planning can provide data on appropriations, total and current year expenditures, and principal and interest payments on the appropriate bond issue for all capital projects that can be identified as having a health manpower training component. A large capital improvements program for these institutions has been underway for some time.

Student Aid

There is no State agency to administer State funds for student aid and no State funds are specifically directed towards students enrolled in the health professions. General Appropriations are made directly to the institution.

Direct Support

The only health professions training program directly supported by a State agency was a psychiatric residency program provided by the Delaware State Hospital (part of the Department of Health and Social Services). The precise amount allocated to the psychiatric residency program was not determinable since all training funds were grouped together.

* FLORIDA

The following agencies and offices were visited: (April 8-10, 1974)

* Southern Regional Education Board
* Division of Community Colleges
* Division of Universities
* Office of the Controller
* Bureau of the Budget
* Student Financial Aid
* Division of Vocational Education
* Division of Mental Health
* Leon County
* City of Tallahassee
* Leon County School District
* Gadsden County

Expenditure for health manpower education in Florida has been expanding rapidly over the past 5 years. Health-related programs are found primarily in the community colleges and State univetsities. Other agencies, such as the Department of Mental Health, are marginally involved. The Bureau of the Budget could not provide the level of detail required, since it utilizes only summary figures provided by the Departments. Figure 13 shows the governmental agencies that have data relevant to this study.

The Department of Education contains the Division of Universities (responsible for 9 universities in the State University System) and the Division of Community Colleges (responsible for 28 community colleges). The Division of Universities compiles data on health education programs, but not in detail required for this study. Reliable data on finances and enrollment is available for the University of Florida Health Center and the University of South Florida Medical Center. Except for these special units which are detailed separately in budget documents, no financial detail for health-related programs offered in other universities is immediately available. However, efforts to compile these data are being made by the Division of Universities

The Division of Community Colleges has developed the most impressive cost system reviewed to date. This system provides total State costs, costs per FTE, number of students enrolled for each major program area, for each specific degree area, and for each course offered, for each community college, as well as for the entire system. The data are collected regularly processed for computer storage, and are readily available.

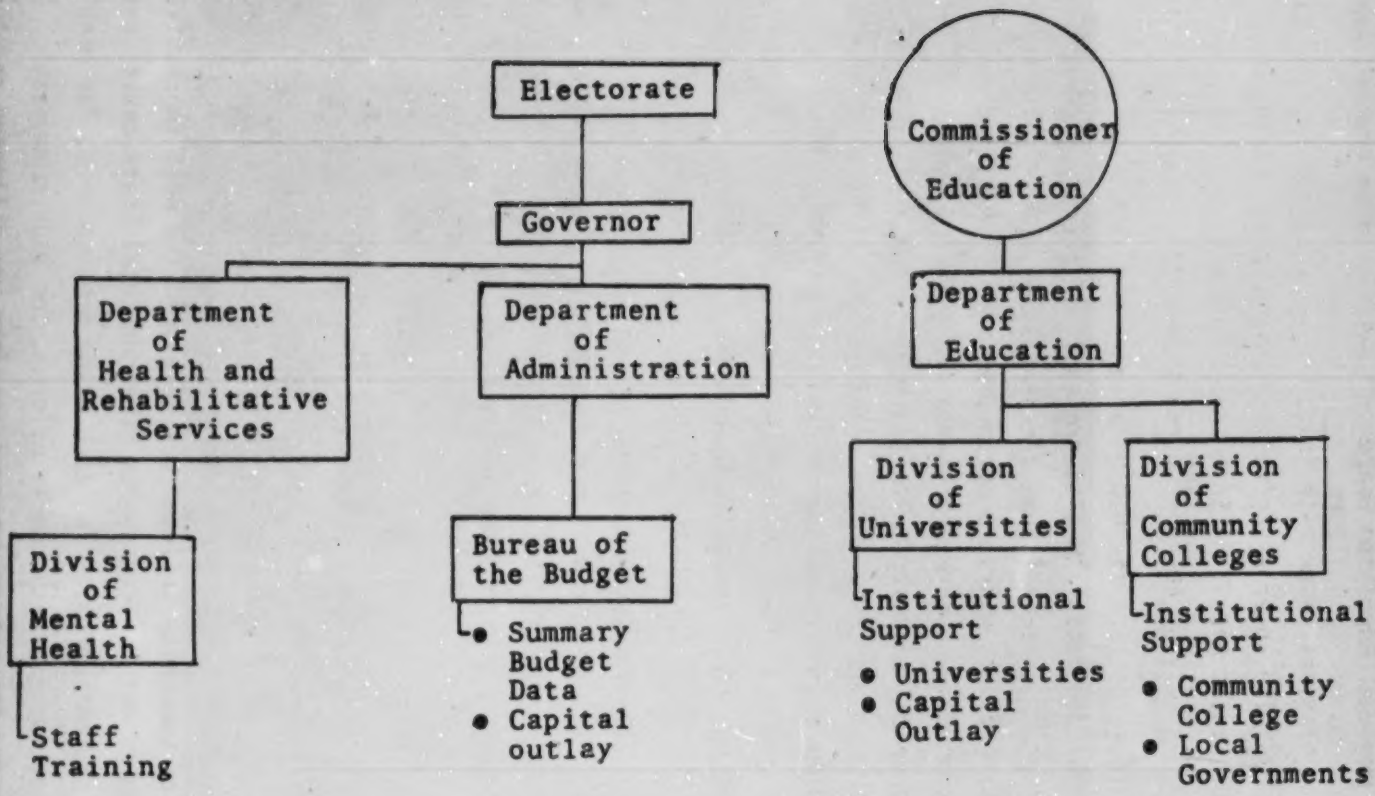


Figure 13: FLORIDA EXECUTIVE DEPARTMENT AGENCIES THAT HAVE DATA RELEVANT TO PROJECT REQUIREMENTS

Institutional Support

Table L.1 shows health manpower education programs offered at State universities, with projections of the number of degrees to be granted.

The University of Miami, a private institution, receives State funds for its College of Medicine under a capitation formula based on the total number of Florida residents enrolled ($6,500 for each four-year degree student, and $8,500 for each three-year degree student).

Community Colleges utilize the HEGIS categories to classify their enrollment and expenditure data. "Health professions" include students in pre-professional programs (pre-medicine, pre-dentistry, etc.) while "Health" includes students enrolled in degree programs, primarily in allied health fields. This Division can, upon request, also identify the amount of local support provided for each community college district; for the entire system it approximates nearly 30 percent. These funds can be allocated to the health field, based upon enrollment percentages, to obtain fairly reliable estimates by local support for health manpower education. This appeared to be the only place where local data could be obtained at the State level without canvassing all local jurisdictions.

Enrollment data are available from the Community Colleges by institution and program. Currently, the Division of Universities only has data on degrees conferred by program, plus projections through 1980. Enrollment data must be gathered directly from the institutions.

Capital Outlay

Information on capital outlay funding was limited at the State level to University of Florida Health Center and University of South Florida Medical Center (see Table L.2). No listing of capital construction projects by program or purpose was available from the State Budget, the Division of Universities, or the Community Colleges Division.

Capital construction for the State universities and community colleges is supported by higher education bonds, financed by revenues received from a Statewide utility tax. Each State university or community college receives $400 per FTE student for capital construction purposes.

INSTITUTIONAL SUPPORT	Expenditures (actual)	Expenditures (estimated)	Expenditures (recommended)	Program Data	74-75	79-80	Max
1. University of Florida Health Center - Total	$28,794,450	$35,193,833	$41,705,141	a. Medicine	73	145	150
Teaching Hospital	17,763,446	21,697,491	24,975,781	b. Dentistry	0	60	80
				c. Pharmacy	142	125	125
				d. Nursing	130	200	200
				e. Occupational Therapy	33	40	40
				f. Physical Therapy	32	36	36
				g. Dietetics/Clinical Nutrition	0	?	?
				h. Speech Pathology/Audiology (MS. only)			
				i. Health/Hospital Administration (MS. only)			
				j. Medical Technology	25	43	43
2. University of South Florida Medical Center - Total	3,899,300	5,270,144	7,216,445	a. Medicine	48	125	125
Medicine	3,727,621	5,011,654	6,831,600	b. Nursing	40	140	140
Nursing	171,679	258,490	384,845	c. Speech Pathology/Audiology	40	50	60
Teaching Hospital	19,940	75,000	503,370				
3. University of Florida Veterinary Medicine	307,100	228,483	531,648	a. Veterinary Medicine		40	80
4. University of Miami (Capitation grant - Medicine)	2,997,714	3,357,000	4,508,000	a. Medicine	134	150	150
5. Florida A & M	(data to be supplied)			a. Pharmacy	45	50	80
				b. Nursing	35	45	75
				c. Medical Sciences (Advanced Placement in FSU)	40	60-65	No limit
				d. Dietetics/Clinical Nutrition	8	15	35-40
6. Florida State University	(data to be supplied)			a. Nursing	130	150	150
				b. Medical Sciences (Advanced Placement in FAMU)	40	60-65	No limit
				c. Dietetics/Clinical Nutrition	45	55	No limit
				d. Speech Pathology/Audiology	40	45	No limit
7. Florida International University	(data to be supplied)			a. Nursing	100	200	200
				b. Occupational Therapy	8	20	20
				c. Physical Therapy	18	25	25
				d. Dietetics/Clinical Nutrition	12	20	25
8. Florida Technological University	(data to be supplied)			a. Medical Record Administration	15	30	No limit
				b. Radiation Technology	5	25	No limit
				c. Respiratory Therapy	25	30	No limit
				d. Speech Pathology/Audiology	20	45	No limit
9. Community Colleges - Total	6,697,085	8,057,757	11,583,341		FTE Students		
					FY 73	FY 74	FY 75
Health Professions	260,949	340,065	394,057		203	289	238
Health	6,436,136	7,717,692	11,189,284		4,995	4,921	6,740
10. Community Hospital Education	491,652	750,000	1,500,000				
Total (on available data)	$43,187,301	$52,857,217	$67,044,575				

Table L.1 : INSTITUTIONAL SUPPORT

Student Aid

State funds for student aid are administered through the Office of Student Financial Aid. Data on aid to students in health-related programs are not directly available. However, fairly reliable estimates based on enrollment data by program area indicate that about $1.2 million of all student aid funds went to students in health-related programs in FY 74. For out-of-State student aid funds administered through the Southern Regional Education Board, data were available for students enrolled in medicine, dentistry, veterinary medicine, optometry, and actuarial services (see Table L.3).

The Southern Regional Board provided program and financial detail on three discipline areas for all 14 States of the Compact. For those three areas, a total of 1,233 out-of-state students were supported with funds of $3,083,400 during the 1972-73 school year through the SREB program (see Table L.4).

Direct Support

The only State agency that provides a significant level of training for health manpower was the Division of Mental Health. A stipened program provides Florida residents with opportunities to enroll in graduate level programs. These stipends' debts can be cancelled by the recipients' service within the Division upon completion of the program. In FY 74, some $56,400 was expended in the training of 23 staff members.

Table L.2

OPERATING CAPITAL OUTLAY SUPPORT
FOR HEALTH MANPOWER EDUCATION

Capital Outlay	FY 73 Expenditures (actual)	FY 74 Expenditures (estimated)	FY 75 Appropriations (recommended)
1. Un. of Florida Health Center Operating Capital Outlay	$1,345,078	$1,342,550	$1,469,164
2. Un. of South Florida Medical Center - Operating Capital Outlay	405,500	362,792	459,100
Subtotal	$1,750,578	$1,705,342	$1,928,264

Table L.3

STATE STUDENT AID SUPPORT
FOR HEALTH MANPOWER EDUCATION

Student Aid	FY 73	FY 74	FY 75	
1. Office of Student Financial Aid (all Fla. residents in health-related programs)	N.A.	1,200,000	N.A.	2,526 aid recipients
2. Out-of-State (SREB) - Total	875,420	1,102,950	1,325,750	
Dentistry	448,200	620,750		191 students-FY74
Veterinary Medicine	303,000	486,000		108 students-FY74
Medicine	38,500	45,500		14 students-FY74
Optometry		40,000		20 students-FY74
Actuarial Science		4,500		5 students-FY74
Subtotal	875,420	2,302,950	1,325,750	

MEDICINE:

State	No. of Students	Amount of Support	Participating Institution	No. of Students	Amount
Alabama	15	$ 41,250	Meharry	108	$306,000
Florida	14	38,500			
Georgia	14	38,500			
Louisiana	7	19,250			
Maryland	7	19,250			
Mississippi	8	22,000			
North Carolina	15	50,250			
South Carolina	0	-0-			
Tennessee	16	44,000			
Virginia	12	-0-			
Texas	0	33,000			
Total	108	$306,000		108	$306,000

DENTISTRY:

State	No. of Students	Amount of Support	Participating Institution	No. of Students	Amount
Alabama	7	$ 12,000	Baylor	6	$ 12,000
Arkansas	120	216,000	Emory	123	221,400
Florida	249	448,200	L.S.U.	14	25,200
Georgia	0	-0-	Meharry	47	84,600
Louisiana	2	3,600	Alabama	17	30,600
Maryland	1	1.800	Louisville	22	39,600
Mississippi	94	169,200	Maryland	45	81,000
North Carolina	8	14,400	Tennessee	165	295,800
Oklahoma	0	-0-	Virginia Commonwealth	58	104,400
South Carolina	0	-0-			
Tennessee	14	25,200			
Texas	0	-0-			
Virginia	2	3,600			
Total	497	$894,600		497	$894,600

VETERINARY MEDICINE:

State	No. of Students	Amount of Support	Participating Institution	No. of Students	Amount
Alabama	29	$ 87,000	Alabama Poly.	0	$ -0-
Florida	101	303,000	Auburn	287	860,000
Georgia	6	18,000	Oklahoma State	57	171,000
Kentucky	62	187,000	Texas A & M	33	98,800
Louisiana	68	203,800	Tuskegee	81	243,000
Maryland	46	138,000	Georgia	170	510,000
Mississippi	69	206,000			
North Carolina	71	213,000			
South Carolina	41	123,000			
Tennessee	66	197,000			
Texas	0	-0-			
Virginia	57	171,000			
West Virginia	12	36,000			
Total	628	$1,882,800		628	$1,882,800

Table L.4: SUMMARY OF OUT-OF-STATE SUPPORT THROUGH THE SOUTHERN REGIONAL EDUCATION BOARD

* GEORGIA

The following agencies and offices were visited: (Feb. 5,6,7, 1975)

* State Office of Planning and Budget
* State Scholarship Commission
* State Board of Regents
* State Department of Education

Presently Georgia is increasing its aid to all public colleges and universities in the State and has increased funding to the Southern Regional Education Board for training of its students in out-of-State schools offering health training programs not available in-State. Officials of the State Department of Education and Board of Regents anticipate that funding for health-related programs will continue to increase rapidly for the next several years, due to reports of critical need for additional health manpower through Georgia.

Institutional Support

The State supports 1 medical school, 3 State universities, 12 senior colleges, 15 junior colleges, and 25 vocational technical schools. Most of the State universities, senior colleges, and junior colleges offer health and/or health related programs. The postsecondary educational system in Georgia is directed by two State offices: the State Department of Education, and the State Board of Regents.

Institutions under the direction of the Department of Education receive direct State support, while institutions under the State Board of Regents receive their monies indirectly. The State Board of Regents negotiates with each institution for the monies it requested through the Board for the coming fiscal year. The Board may decrease or increase the amount of funding to reflect change in institutional expenditures.

Capital Outlay

Georgia does not publish a capital expenditure budget. Therefore, it is necessary to examine the budgets of each insitiution individually.

Student Aid

Student Aid monies for the training of health manpower can be identified by examination of State Scholarship Commission budget documents. Georgia supports out-of-State health manpower training programs through membership in the Southern Regional Education Board.

Direct Support

Of the two State agencies that contribute to the support of health manpower training, the Department of Education was able to provide data on funds expended for fiscal years 1973, 1974, and 1975. The Department of Human Resources, however, was not able to supply necessary data at the time of the interviews, but promised to forward it as soon as possible.

* ILLINOIS

The following agencies and offices were visited: (April 17-19, 1974)

* Cook County Bureau of Administration
* City Colleges of Chicago
* Department of Mental Health
* Board of Higher Education
* Bureau of the Budget
* Illinois State Scholarship Commission
* Department of Public Health
* Department of Vocational Education and Rehabilitation
* Capital Development

Illinois is very active in the health training field, supporting several schools of medicine, both public and private, and a broad range of allied health programs. It is, in fact, an important national resource for the training of health professionals; nearly one-half of all physicians trained in Illinois eventually locate in other areas. The State is concerned that large expenditures for support of health manpower training do not fully benefit the State's residents, and programs to encourage retention of these professionals are underway.

As a consequence of a 1968 study documenting the need for a significantly larger number of trained health professionals,* overall enrollments and total State support for health education programs more than doubled from 1968 to 1974. The University of Illinois Medical Center was the focus of this expansion program. Affiliated medical schools were established in Rockford, Peoria, and in the metropolitan Chicago area. A one-year basic medical sciences program to precede medical school training was opened at the Urbana campus and the Medical Center campus. A School of Public Health was established; the School of Pharmacy was significantly expanded. Southern Illinois University expanded programs in dentistry, nursing, medicine, and and the allied science fields. The State provided both operating and capital funds to schools of medicine, dentistry and nursing, and to private hospitals providing allied health science programs. The number of students being trained in the health professions was significantly expanded, construction of costly facilities was minimized.

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* Education in the health fields for the State of Illinois, June 1968.

To monitor and assess the progress of the expansion program, a Health Education Commission was established as part of the Board of Higher Education. This compilation of both financial and program data has now been assumed by the Board's Financial Analysis Staff. A comprehensive report was compiled in May 1972, listing enrollment increases and funds allocated to each of the program areas, by institution. This report was to be updated by August 1974. Figure 14 presents State government agencies that compile data useful for this project.

Institutional Support

Both public and private institutions have benefitted from the recent expansion of State support for health manpower education programs. As shown in Table M.1, only the University of Illinois Medical Center and Southern Illinois University offer medical and dental programs. However, for nursing and the allied health fields, several of the Board of Regents' and Board of Governors' institutions provide such programs. The Medical Center serves to coordinate the development of medical programs for Rockford and Peoria schools, as well as for the metropolitan Chicago area. Basic Medical Sciences programs have been established at Urbana (UI) and at the Medical Center. In addition, the Schools of Pharmacy, Public Health, Nursing, and Associated Medical Sciences are part of the Medical Center program. Southern Illinois University is responsible for the Medical schools at Springfield and Carbondale, and the dental school at Edwardsville.

State support for private institutions is funded by the "Health Services Education Grants Act" which appropriated monies to the BHE for allocation to nonpublic institutions according to a formula based upon enrollment increases in the health programs. Both operating and capital funds are provided. (See Table M.2). Projections through FY 76 indicate that operating support will continue at a high level, while capital support will level off.

The Junior College Board administers State aid programs for the junior college districts, but it does not presently have detailed data on the health occupational area.

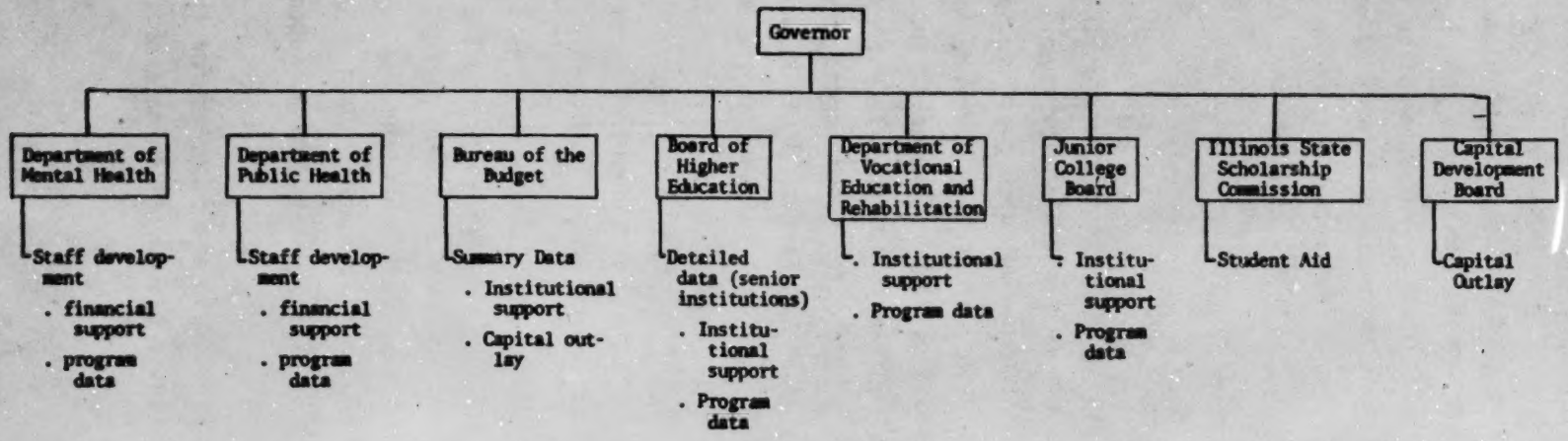

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Figure 14: ILLINOIS GOVERNMENT AGENCIES THAT HAVE DATA RELEVANT TO PROJECT REQUIREMENTS

Table M.1

SUMMARY OF STATE SUPPORT FOR HEALTH MANPOWER EDUCATION PROGRAMS FY73 and FY74 AT PUBLIC SENIOR INSTITUTIONS — ILLINOIS

	FY 73		FY 74		Program Data FY 74
	Direct (actual)	Total (actual)	Direct (estimated)	Total (estimated)	Enrollments
Medicine					
Instruction					
University of Illinois					
Basic Medical Sciences - Urbana	370,000	490,000	410,000	$40,000	32
Basic Medical Sciences - Medical Center	2,250,000	3,300,000	2,480,000	3,630,000	252
Abraham Lincoln School of Medicine	6,000,000	8,880,000	6,670,000	9,770,000	607
Metropolitan Chicago School of Medicine	780,000	1,140,000	860,000	1,250,000	25
Peoria School of Medicine	1,090,000	1,600,000	1,200,000	1,760,000	70
Rockford School of Medicine	900,000	1,320,000	990,000	1,450,000	50
Grad. College	190,000	170,000	100,000	190,000	--
(Total: UI)	(11,540,000)	(16,900,000)	(12,700,000)	(18,600,000)	
Southern Illinois University					
Carbondale - Basic Medical Sciences	1,030,000	1,890,000	2,270,000	4,170,000	48
Springfield	2,330,000	3,470,000	5,140,000	7,650,000	24
(Total: SIU)	(3,400,000)	(5,420,000)	(7,300,000)	(11,960,000)	
(Total: Instruction)	(14,940,000)	(23,320,000)	(20,200,000)	(30,560,000)	
Hospital (UI)	11,120,000	14,170,000	12,230,000	15,590,000	
Research (UI)	1,080,000	2,520,000	1,190,000	2,770,000	
Public Service (UI)	3,920,000	5,680,000	4,310,000	6,250,000	
(Total: Medicine)	(31,060,000)	(44,690,000)	(37,930,000)	(55,170,000)	
Dentistry					
Instruction					
University of Illinois	2,040,000	2,990,000	2,140,000	3,140,000	464
Southern Illinois University	2,230,000	4,360,000	2,170,000	4,080,000	64
(Total: Instruction)	(4,360,000)	(7,350,000)	(4,310,000)	(7,220,000)	
Research (UI)	0	130,000	0	140,000	
(Total: Dentistry)	(4,360,000)	(7,480,000)	(4,310,000)	(7,360,000)	
Nursing					
Instruction					
University of Illinois	1,450,000	2,150,000	1,800,000	2,670,000	691-FY73
Southern Illinois University	360,000	680,000	510,000	960,000	290-FY73
Northern Illinois University	310,000	580,000	310,000	580,000	643-FY73
Sangamon State University	30,000	60,000	100,000	200,000	--
Chicago State University	80,000	170,000	80,000	170,000	--
Governors State University	80,000	190,000	140,000	330,000	--
(Total: Nursing)	(2,310,000)	(3,830,000)	(2,940,000)	(4,910,000)	
Allied Health					
Instruction					
University of Illinois					
School of Associated Medical Sciences	650,000	950,000	720,000	1,050,000	183-FY73
Pharmacy	1,340,000	1,850,000	1,470,000	2,040,000	721-FY73
Public Health	630,000	830,000	690,000	910,000	25-FY73
Veterinary Medicine	2,060,000	2,710,000	2,270,000	2,980,000	391-FY73
(Total: IU)	(4,680,000)	(6,340,000)	(5,150,000)	(6,980,000)	
Southern Illinois University	310,000	560,000	310,000	560,000	--
Illinois State University	430,000	810,000	560,000	1,050,000	--
Northern Illinois University	40,000	80,000	80,000	150,000	--
Eastern Illinois University	310,000	550,000	310,000	550,000	--
Western Illinois University	230,000	410,000	230,000	410,000	--
Sangamon State University	40,000	80,000	80,000	150,000	--
Governors State University	70,000	180,000	140,000	360,000	--
(Total: Instruction)	(6,110,000)	(9,010,000)	(6,860,000)	(10,210,000)	
Research (UI)	110,000	320,000	120,000	350,000	
Public Service					
University of Illinois	0	100,000	0	110,000	
Northern Illinois University	40,000	60,000	50,000	100,000	
(Total: Public Service)	(40,000)	(160,000)	(50,000)	(210,000)	
(Total: Allied Health)	(6,260,000)	(9,490,000)	(7,030,000)	(10,770,000)	
TOTAL: HEALTH PROGRAMS	43,960,000	65,490,000	52,210,000	78,320,000	

Table M.2

NONPUBLIC HEALTH MANPOWER EDUCATION GRANTS - ILLINOIS

	FY '73 (actual)	FY '74 (estimated)	FY '75 (projected)	FY '76 (projected)	Program Data FY '73 Enrollments
OPERATING AND STABILIZATION					
Medical					
Chicago College of Osteopathy	$ 505,000	$ 631,000	$ 715,000	$ 715,000	331
Chicago Medical School/UHS	567,000	831,000	1,101,000	1,569,000	549
Loyola University	949,000	1,045,000	1,057,000	1,057,000	486
Northwestern University	571,000	793,000	877,000	877,000	641
Rush Medical College	804,000	1,122,000	1,320,000	1,776,000	192
University of Chicago	417,000	411,000	477,000	531,000	373
	(3,813,000)	(4,833,000)	(5,547,000)	(6,525,000)	(2,372)
Dental					
Loyola University	577,000	613,000	613,000	613,000	494
Northwestern University	195,000	225,000	222,000	237,000	370
	(772,000)	(938,000)	(835,000)	(850,000)	(864)
Nursing	(661,161)	(750,000)	(750,000)	(750,000)	--
Allied Health	(546,446)	(954,000)	(954,000)	(954,000)	--
Residency Programs	(148,000)	(750,000)	(750,000)	(750,000)	--
	$ 5,940,607	$ 8,125,000	$ 8,836,000	$ 9,829,000	
CAPITAL AND PLANNING					
Medical					
Chicago College of Osteopathy	$ 313,221	$ 327,535	$ 680,000	$ -0-	
Chicago Medical School/UHS	-0-	4,420,000	-0-	-0-	
Loyola University	51,781	350,740	320,000	-0-	
Northwestern University	97,189	98,142	400,000	-0-	
Rush Medical College	833,866	2,704,309	-0-	-0-	
University of Chicago	321,445	467,969	-0-	-0-	
	(1,439,902)	(8,368,695)	(1,400,000)	(-0-)	
Dental					
Loyola University	82,245	122,951	50,000	-0-	
Northwestern University	4,130	8,738	30,000	-0-	
	(86,375)	(131,689)	(80,000)	(-0-)	
Nursing	(88,545)	(-0-)	(-0-)	(-0-)	
Allied Health	(234,352)	(-0-)	(-0-)	(-0-)	
Clinical Hospitals					
Springfield	1,499,400	2,965,000	-0-	-0-	
Rockford	317,019	535,000	2,500,000	2,065,000	
Peoria	-0-	500,000	2,000,000	2,900,000	
Metro Six	-0-	1,000,000	4,000,000	4,300,000	
Carbondale	234,200	-0-	-0-	-0-	
	(2,050,619)	(5,000,000)	(8,500,000)	(9,265,000)	
Total Capital	$ 3,899,393	$ 13,500,384	$ 9,980,000	$ 9,265,000	
GRAND TOTAL	$ 9,840,000	$ 21,625,384	$ 18,816,000	$ 19,094,000	

State support for nursing and allied health education at the community colleges has been estimated by the BHE Financial Analysis Staff as $3,600,000 for FY 1973, $4,800,000 for FY 1974, and $6,000,000 for FY 1976. There are also specific State appropriations for vocational and technical education which support, in part, health professions education.

The Board of Vocational Education and Rehabilitation (BVER) manages funding for vocational and technical education. This agency has enrollment data available on computer by occupational area, but financial data is available only by the level of institution.

Vocational educational programs are operated at secondary, adult (credit and non-credit), and post-secondary levels. Funds for post-secondary programs are channelled through the community colleges. Presently, $18.50 is allocated by the BVER to each institution for all student semester hours generated, with an additional $5.00 per student semester hour of vocational and technical education. In Illinois, Federal funds are equally matched by State funds for vocational education programs.

In FY 73, the following post-secondary health professions enrollments were supported by vocational monies via BVER.

	Enrollments[1/]	State Funds[2/]
Dental Assisting	447	$36,343
Dental Hygiene	325	26,424
Dental laboratory technology	121	9,838
Medical laboratory assisting	307	24,960
Other medical laboratory technology		
Nursing, AA	5,852	475,793
Nursing, L.P.N.	1,515	123,176
Nursing Assisting	112	9,106
Occupational therapy	91	7,399
Physical therapy	207	16,830
Radiologic technology	759	61,710
Environmental health	2	163
Mental health technology	263	21,383
Inhalation therapy	388	31,546
Medical assistant	136	11,057
Health aide	230	18,700
Total	11,057	$ 898,983

Table M.3

CAPITAL OUTLAY FOR HEALTH EDUCATION PROGRAM AT HIGHER EDUCATION INSTITUTIONS - ILLINOIS

	Capital Outlay	Expenditures* to 3/31/74	FY 74 Appropriations
1.	University of Illinois		
	Medical Center		
	Main Campus		
	Dentistry Building, Phase II	2,409,440	6,889,750
	Library of Health Sciences	1,553,116	2,656,100
	Generator	0	141,700
	Remodeling - College of Medicine	0	2,329,600
	Equipment for Remodeled Areas	0	194,249
	Equipment for Dentistry Building	0	650,000
	Equipment for Health Sciences Library	75,355	550,000
	Rockford - School of Medicine		
	Buildings - New	0	4,239,565
	Equipment	34,875	92,800
	Remodeling	79	638,380
	Equipment	90,964	172,000
	Peoria - School of Medicine		
	Buildings - New	8,671	6,364,045
	Land	0	280,000
	Equipment	110,316	171,000
	Urbana - Basic Medical Sciences		
	Medical Sciences Building	2,094,319	4,216,084
	Equipment	0	500,000
	Subtotal	6,377,135	30,084,473
2.	University of Illinois		
	Urbana		
	Veterinary Medicine Hospital	2,889,628	6,938,730
	Equipment for Hospital	0	500,000
	Speech and Hearing Clinic	0	1,990,100
	Subtotal	2,889,628	9,428,830
3.	Southern Illinois University		
	Springfield - School of Medicine		
	Completion of Facility I	0	460,000
	Facility II	91,536	7,207,800
	Site Improvements	0	75,000
	Carbondale		
	Rehabilitation of Medical Facility	453,057	615,000
	Equipment	0	315,000
	Edwardsville		
	Rehabilitation of Dental School	403,823	510,000
	Subtotal	948,416	9,177,800
	Total	10,215,179	48,691,103

* Period covered is from 7/1/73 through 3/31/74.

The estimate of State funding is based on the percent of enrollment in each program area multiplied by the total State funds for post-secondary vocational programs.

Capital Outlay

Data on the State-supported capital outlay program at public senior institutions related to the health professions are available from the Capital Development Board (CDB), an agency established three years ago to plan and coordinate all State capital construction projects (See Table M.3). The CDB maintains a computerized project listing, by title, of all capital projects, including those for higher education.

Capital funds are provided through general obligation bonds, not specifically earmarked for particular projects. Capital grants to probate institutions, are administered directly by the Board of Higher Education. No detail is available on these projects.

Student Aid

State student aid funds are channelled through the Illinois State Scholarship Commission, an agency that grants monitary awards and loans to post-secondary students enrolled in public and private two-year and four-year schools of higher education, or in hospital schools of nursing or allied health. It also manages a guaranteed loan program in conjunction with State financial institutions.

Extensive data are compiled on the recipients of these awards, mostly concerning student's financial background, institutions attending, racial/ethnic background, geographic location, and occupational choice. By allocating total dollars awarded by the percent of students choosing health occupations, it is possible to devise a relatively accurate estimate of the amount of student aid directed toward the health professions (see Table M.4). A similar allocation methodology was utilized for the loan program.

1/ U.S. Office of Education survey form (OMB # 3138)

2/ Total dollars from BVER computer print-out.

Table M.4

STATE STUDENT AID FOR HEALTH EDUCATION PROGRAMS - ILLINOIS

Student Aid	Monetary Awards	
	FY 73	FY 74
Private 2-year institutions	$ 2,038,240	$ 2,860,245
Private 4-year institutions	28,630,247	30,082,795
Subtotal	$30,668,487	$32,943,040
Public 2-year institutions	$ 2,315,357	2,624,015
Public 4-year institutions	18,107,281	18,508,675
Subtotal	$20,442,638	$21,132,650
All 2-year institutions	$ 4,353,557	$ 5,484,260
All 4-year institutions	46,777,528	48,591,470
Subtotal	$51,091,125	$54,075,730
Percent of recipients choosing health occupations	12.7%	15.4%
Student Aid (Health)	$ 6,488,573	$ 8,327,662
	Loan Program	
Total Loans	$59,665,000	$65,100,000
Loans for students choosing health occupations	$ 7,577,455	$10,025,400
Total Student Aid (Health)	$14,066,028	$18,353,062

Student aid data are stored on tape, are easily accessible and may be aggregated in several ways. Dollar amounts are available by institution. Therefore, it is possible to estimate the amount of student aid for each specific health occupation, by each institution. Monetary award recipients must attend institutions within the State, while guarantee loan participants may attend out-of-State institutions. Since Illinois does not belong to an interstate compact on higher education, it does not provide student aid support for out-of-State students. However, loan programs are available to Illinois residents attending out-of-State institutions. All monetary award recipients must be State residents attending State institutions.

Direct Support

In previous years, the Department of Mental Health supported an extensive training program for Staff members. However, due to a drastic cut in apporpriations, the training program is now very minimal. Regional offices manage their own training programs from regular operating funds. Although an upper limit is set on the expenditures for training, regional offices may spend less than the limit, and sometimes do. To illustrate the decrease in available training monies, in FY 67, $2.5 million was authorized, in FY 73, only $200,000 was apporved.

The Department of Public Health administers a similar program for training of staff employees. Stipend support is provided for formal academic training. Masters degree programs in public health departments are also considered eligible for some of the training provisions.

Stipend awards amount to $300 per month, not to exceed $3,000 per year, for each recipient, and two months of service within Illinois public health agencies for each month of stipend support is required of each recipient.

* INDIANA

The following agencies and offices were visited: (Jan. 19 – 20, 1975)

* Indiana Commission for Higher Education
* State Budget Agency
* Department of Mental Health
* State Scholarship Commission

The higher education system in the State of Indiana consists of seven separate entities all of which operate health training programs of two years or more in length.

* Indiana University
* Indiana State University
* Purdue University
* Vincennes University
* Ball State University
* Indiana Vocational-Technical Institutes
* Private Universities

The private universities receive no State support for current operating expenditures, and therefore the programs in these universities are considered out-of-scope.

Table N. lists health programs offered by the various educational systems in Indiana.

Institutional Support

Six of the seven educational systems in the State of Indiana receive State support to operate health manpower training programs, in the form of general and special fund appropriations. A detailed breakdown of funds by school and by program was provided by the Commission, as well and enrollment figures for fiscal years 1973 through 1975 was provided by the Commission for Higher Education.

Indiana also operates a Statewide Medical Education Program, that offer training in basic sciences at all public institutions to first year students who plan to major in a health field.

Capital Outlay

Expenditures for Capital outlay are either general or restricted funds

Table N. HEALTH PROGRAMS OFFERED BY PUBLIC INSTITUTIONS IN INDIANA

PROGRAMS A= Associate AB= Baccalaureate C= Certificate	BALL STATE	INDIANA STATE UNIVERSITY	INDIANA STATE Evansville	INDIANA UNIV.	IU-NORTHWEST	IU-SOUTH BEND	IU-KOKOMO	IU-EAST	IU-SOUTHEAST	IUPU-FT. WAYNE	IUPUI	PURDUE UNIV.	PURDUE - CALUMET	PURDUE - N. CENTRAL	VINCENNES	VIN.-JASPER	IVTC-CO. ED.	IVTC-FT. WAY.	IVTC-LAFAYETTE	IVTC-KOKOMO	IVTC-MUNCIE	IVTC-RIVER H.	IVTC-RICHMO.	IVTC-EVANSV.	IVTC-CRUSER	IVTC-WABASH
5092 Food Sales & Distribution												A					C									
5091 Culinary Services																	A	A	A		A		A			
5090 Industrial Management Technology																										
5100 DATA PROCESSING TECHNOLOGIES																										
5101 Data Processing Technologies, General																										
Computer Technology										A	AB	N		A												
Data Processing										A																
5102 Keypunch Operator & Other Input Prep. Tech																										
5103 Computer Programmer Technologies															A	A	A	A		A	A	A	A	A	A	A
Computer Programming																										
5200 HEALTH SERVICES & PARAMEDICAL TECHNOLOGIES																										
5201 Dental Assistant Technologies																										
Dental Assistant			C			C				C									C			C				
5203 Dental Hygiene Technologies																										
Dental Hygiene			A			A				A	A															
Dental Hygiene Technology																										
5204 Dental Laboratory Technologies																										
Dental Laboratory Technology										A																
5205 Medical or Biological Lab. Asst. Tech.																										
Medical Laboratory Technology					A												A		A					B		
Clinical Laboratory Technology																							C			
5207 Radiologic Technologies																										
Radiologic Technology					A	A	A			A	A													B		
5209 Nursing, Practical													C		C		C	C	C			C				
5210 Occupational Therapy Technologies																										
Occupational Therapy											A															
5212 Optical Technologies																										
Optometric Technology				A																						
5213 Medical Records Technologies																										
Medical Records Technology					A												C									
5214 Med. Asst. & Med. Office Asst. Tech.																										
Medical Assistant																	A	A	A	A	A	A	A			
5215 Inhalation Therapy Technologies																										
Respiratory Therapy Technology			A		A						A				A		C	C	C				C	C		
Inhalation Therapy Technology																	C	C	C				C	C		
5216 Psychiatric Technologies																										
Mental Health Technology										A					A											
5219 Physical Therapy Technologies																										
Physical Therapy Technology															A											
5298 Hospital Dietary Technology											A															
5297 Obstetrical Technician																							C			
5295 Emergency Care Technology																	C		C				C			
5295 Cytotechnology											B															
5294 Child Care Technology																	A				A		A			
5293 Culinary Arts Careers																		A								
5292 Operating Room Technology																	C	C		C	C		C			
5291 Child Care Technology																	A					A	A			

designated for a specific purpose. The Commission for Higher Education provided a comprehensive enumeration of State funds used for capital outlays, identified by school, and in some cases, by program.

Student Aid

The Indiana State Scholarship Commission is responsible for distributing student aid funds. No breakdown of financial aid by school or by program was available. However, an allocation procedure based upon total scholarship money and student enrollment was utilized to obtain estimates of expenditures.

Indiana does not participate in an out-of-State student exchange program.

Direct Support

The Department of Mental Health operates a training program in teaching and research for psychiatric residents at the Larue Carter Hospital.

* IOWA

Site visits were conducted at the following agencies and departments: (March 17 – 18, 1975)

* Office of the Comptroller
* Office of Staff Development and Training
* Board of Regents
* Higher Education Facilities Commission
* Iowa Department of Public Instruction
* Department of Social Services

Some data were obtained by the site visit team, but several departments indicated that it would be necessary to review complex in-house documents or run a computer review of records to acquire needed information. This they agreed to forward.

Institutional Support

The Iowa system of higher education is comprised of private and public universities, private colleges, community colleges, and technical colleges.

The State's three universities are financed by unit cost per student times the number of students enrolled in all programs. The uniform unit cost per student was determined by using such considerations as mean faculty salaries, faculty student ratio, and equipment costs.

Programs offered by the various technical and community colleges are funded through the particular college by a formula which considers the taxable base that the technical or community college represents and other variables such as student-faculty ratio, faculty salaries and number of students enrolled per program. As a result, identical programs in various technical and community colleges may be funded at different rates.

Capital Outlay

Expenditures for capital outlay are financed through the State general fund or restricted special fund appropriations. Capital outlay expenditures at the State university level were available, but detailed program data concerning capital outlays for State-supported technical and community colleges was not available.

Student Aid

The Higher Education Facilities Commission in Iowa offers financial aid to all students enrolled in public or private colleges and universities on the basis of need, but no record is kept of program choices.

Direct Support

The Department of Social Services supports training of health manpower education programs through its office of Staff Development and Training in: nursing programs, associated nursing programs, degree counseling programs, social work programs,etc. Support is offered as a percentage of the individual's salary per month times the number of months the person is enrolled as a full-time student. No other agencies provide direct support.

* KENTUCKY

The following agencies and offices were visited: (May 21-22, 1975)

* Council on Public High Education
* Bureau of Health Services
* Bureau of Vocational Education, State Department of Education
* Bureau of Administration and Finance, State Dept. of Education

Offices visited in the conduct of this site visit are shown in Figure 15.

Institutional Support

There are eight State-supported insitutions of higher education:

* University of Kentucky
* Eastern Kentucky University
* Western Kentucky University
* Morehead State University
* Murray State University
* Kentucky State University
* Northern Kentucky State College
* University of Louisville

Each of the eight State-supported institutions functions as an autonomous entity, receiving an annual lump-sum appropriation which may be supplemented from funds in the "Institutional Pool" to alleviate conditions of financial strain.

Each institution prepares and submits, on a biennial basis, its budget request for review by the Kentucky Council on Public Higher Education, which coordinates public higher education in Kentucky through comprehensive statewide planning. The Council is the statutory higher education coordinating agency in the State of Kentucky, comprised of the Superintendent of Public Instruction, ten lay members appointed by the Governor, and the president or chief executive officers of each four-year State institution of high education.

However, the institutions function as purely autonomous bodies with very little State direction. Each submits an annual budget to the Council for review and inclusion in the State Executive Budget. The only data available from the Council is funding for Medical Schools at the University of Kentucky and the University of Louisville. This data also does not

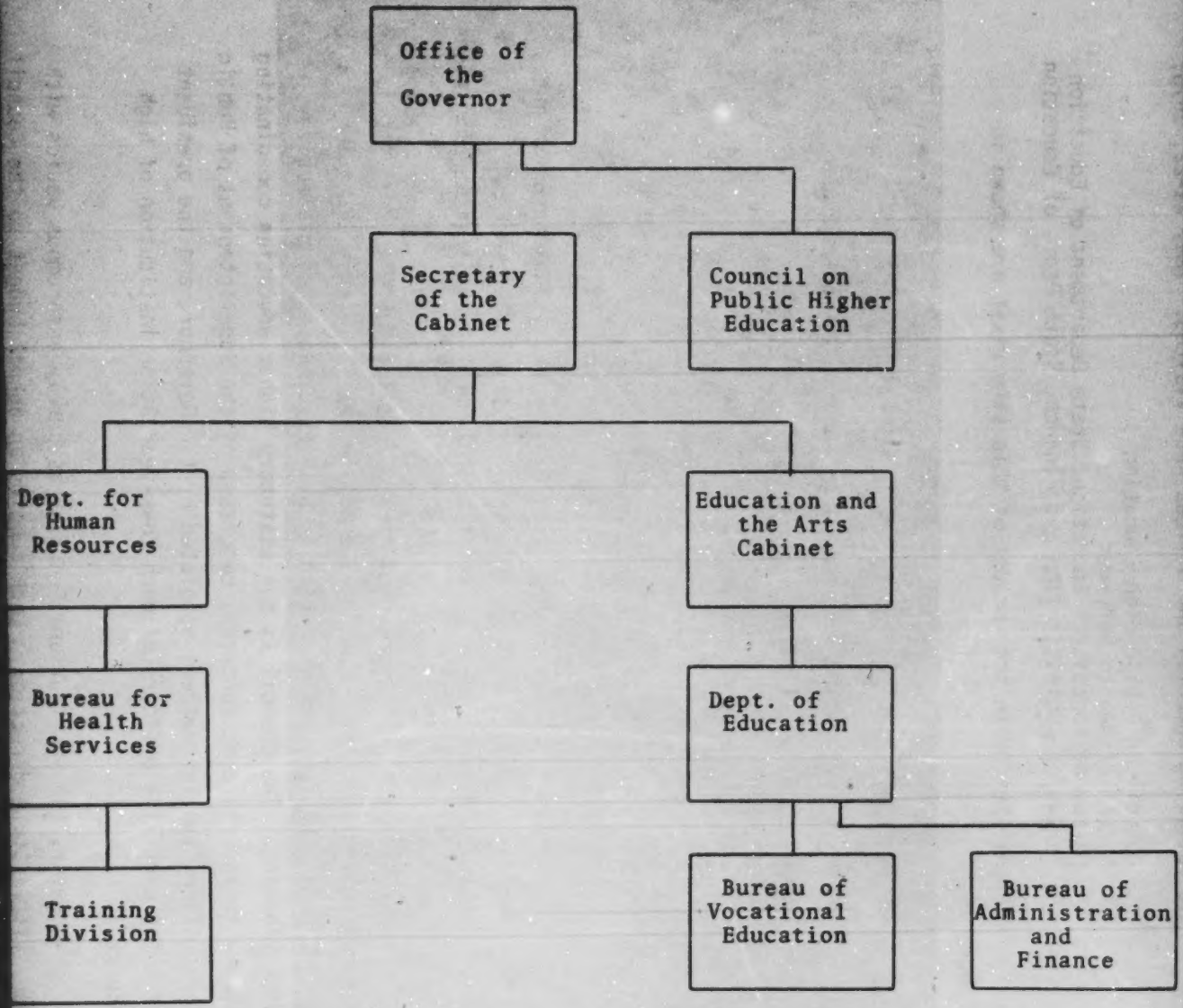
Office of the Governor
Secretary of the Cabinet
Council on Public Higher Education
Dept. for Human Resources
Education and the Arts Cabinet
Bureau for Health Services
Dept. of Education
Training Division
Bureau of Vocational Education
Bureau of Administration and Finance

Figure 15: ORGANIZATION CHART OF OFFICES VISITED IN THE STATE OF KENTUCKY

detail program expenditures, nor does it include health manpower training provided outside of the Medical Schools, such as undergraduate allied health and the Community College System.

The thirteen schools of the State Community College System, which included a total of 8,400 full time equivalent students in 1973-74, are not funded directly, but rather, receive their funds through the University of Kentucky. This makes it impossible to identify State appropriations for health manpower training programs.

Since the State does not employ an FTE funding allocation model, it is not possible to distribute expenditures into program areas as an alternative method of obtaining necessary data. Council staff is currently conducting a cost study which may provide assistance in performing such extrapolations after September 1975.

Capital Outlay

A reasonably large amount of data on capital outlay both for institutions of higher education and for non-institutional programs was compiled by the Council on Public Higher Education and the Bureau of Vocational Education, with the use of Executive Budgets.

Student Aid

The Kentucky Higher Education Assistance Authority is the primary source of direct aid to students in institutions of higher education. In 1976, 1,600 awards amounting to $550,000 were granted primarily to freshman and sophmores. However, since students are not identified by program, no data was available on health manpower training aid.

Direct Support

The State of Kentucky has an extensive program for the training of health manpower personnel which is funded through agencies other than institutions of higher education. In the Department of Human Resources funds are expended for: residency programs, social-worker programs, educational leave programs, outreach efforts, tuition assistance - "Career

Ladder" programs, mental health worker training, workshops, and local Health Department assistance such as sanitarian training programs.

The Bureau of Vocational Education operates 76 Vocational Education Centers and 12 State Vocational Technical Schools at which the following health occupations are taught: Dental Assistant, Certified Lab Assistant, Inhalation Respiratory Therapy, Medical Assistant, Medical Secretary, Nurse Aide, Practical Nursing, Radiologic Technology, Surgical Technician, and Ward Clerk.

* LOUISIANA

The following agencies and offices were visited: (Jan. 8-9, 1975)

* Department of Health and Human Resources
* Department of Education
* Board of Education
* Bureau of the Budget
* Louisiana State University System
* Board of Regents

Louisiana has three independent higher education systems: One includes all schools within the Louisiana State University System; the second system - The State Department of Education - includes 8 State colleges and 2 universities not in the State University system; and the third - Tulane - although a private education system, receives limited financial aid from the State general fund for its medical school.

Documents detailing State institutional support, capital outlay, and student aid for all schools under their jurisdiction are available from the State Board of Education.

The Department of Health and Human Resources aids in the development of health manpower training through contracts to State universities and colleges within medical programs.

Currently, there is no document published by the Louisiana State University System that breaks out data needed for this study.

The Louisiana State University system, a self-governing entity, applies directly to the State Legislature for operating funds.

The State Department of Education System consists of eight State colleges and two universities. Each institution submits an annual budget request to the Department of Education, which makes appropriate recommendations to the State's General Assembly. State Board of Regents aids the Department governing day-to-day operations of these schools but has no responsibility in the area of institutional finance.

The third education entity in the State is Tulane University. To a limited dergee, the University receives State monies through contract work with the State Department of Health and Human Resources. Most of these funds are used or training of medical interns at hospitals throughout the State.

* MARYLAND

The following offices and agencies were visited: (June 17-19, 1975)

* Department of Fiscal Research
* Board for Community Colleges
* Board of Trustees for State Colleges
* Council for Higher Education
* Department of Health and Mental Hygiene

Institutional Support

Four principal educational systems that are involved in the training of health manpower: University of Maryland, State colleges, community colleges, and private colleges and universities. Private schools receive no State support, and therefore are out-of-scope for this study.

All public colleges and universities receive State support for current operations, based on past expenditures, by submitting requests for funds to the Board of Community Colleges or the Board of State Colleges. These requests are reviewed and submitted to the legislature.

The University of Maryland is the primary source of health manpower training programs in the State. In Baltimore, the University operates programs in medicine; dentistry, pharmacy, nursing, and allied health, and maintains a teaching hospital on the Baltimore campus.

Other numerous allied health programs are offered at thirteen community colleges and one State college.

Capital Outlay

No data pertaining to capital outlay specifically for health training was available.

Student Aid

The Board for State Scholarships provides funds for medical students, at a rate of approximately $60,000 per year.

The University of Maryland operates a scholarship program that provides funds for students enrolled in pre-dental professional programs.

Direct Support

The Department of Health and Mental Hygiene funds career-related programs for the education and training of professional presonnel at several of the State hospitals.

* MASSACHUSETTS

The following agencies and offices were visited: (March 26-29, 1974)

* State Department of Public Health
* Department of Manpower Affairs
* Massachusetts Board of Regional Community Colleges
* New England Board of Higher Education
* Department of Mental Health
* State Budget Bureau
* Department of Education
* Division of Manpower Planning (City of Boston)
* Boston Division of Fiscal Affairs
* University of Massachusetts
* Board of Higher Education
* Division of Occupational Education
* Bureau of Building Construction
* Massachusetts Office of Comprehensive Planning
* Boston School Department

The State supports 127 institutions of higher education, of which 31 are State colleges and Universities: 15 community colleges, 1 technical, 12 State colleges, and 3 campuses of the University of Massachusetts. Most of the campuses offer health and/or health-related programs. This relatively complex system is administered by five separate boards -- the University of Massachusetts, State colleges, community colleges, Lowell Technical Institute, and Southeastern Massachusetts University -- none of which employ uniform data collection activities. Institutions receive all of their funds directly from the State, and each campus has full discretion in the use of their money. Students pay tuition and fees to the State, rather than to the institution. Schools are required to file a budget and to report various program data. The Board of Higher Education has a coordinating role over the various State colleges and universities. While individual boards also coordinate, rather than exert direct control, they are good centralized sources of data. No single office collects the data necessary for this project or coordinates data collection activities.

To date, the State, the Division of State Colleges, and the Board of Regional Community Colleges have all maintained a traditional line item, object-category budgeting system. Only the University of Massachusetts has developed a program budget which identifies total costs for the School of Nursing, Department of Public Health, and School of Medicine. The State

Budget Bureau, the Division of State Colleges and the Board of Regional Community Colleges reportedly are currently involved in the planning and development of program budgeting systems expected to be fully operational by fiscal year 1977.

Figure 16 displays offices within the State government that provided data and the category of information obtained from each.

Institutional Support

Two of the three University of Massachusetts' campuses offer programs in the health professions: The Amherst campus offers training in public health and a 4-year nursing program. The Worchester campus has a new medical school that graduated its first class in 1974.

Thirteen of 15 State community colleges conduct health-related manpower training programs. The Board of Regional Community Colleges prepares an annual program enrollment report, which identifies programs offered by the school, and the number of students in each program, by school. However, since community colleges operate on a straight line item budget, costs of operating health training programs cannot be readily identified.

Support for health programs in private schools is provided through the New England Board of Higher Education (NEBHE) in the six New England States. NEBHE operates a Regional Student Program, wherein a State may purchase student spaces from another State or a private institution, in cases where the programs offered by the purchasing state do not include that area of study. Terms of the contracts are negotiated and administered by NEBHE.

Currently, the health professions are the most popular area of study within the Regional Student Program. In FY 1974, total Massachusetts appropriations to NEBHE amounted to $631,207. Enrollment information on the number of students in each program and per student cost by program are forthcoming. (See Table 0.1).

Capital Outlay

State capital expenditures are included in a yearly Capital Outlay Act, subject to the approval of the State legislature, and financed by general

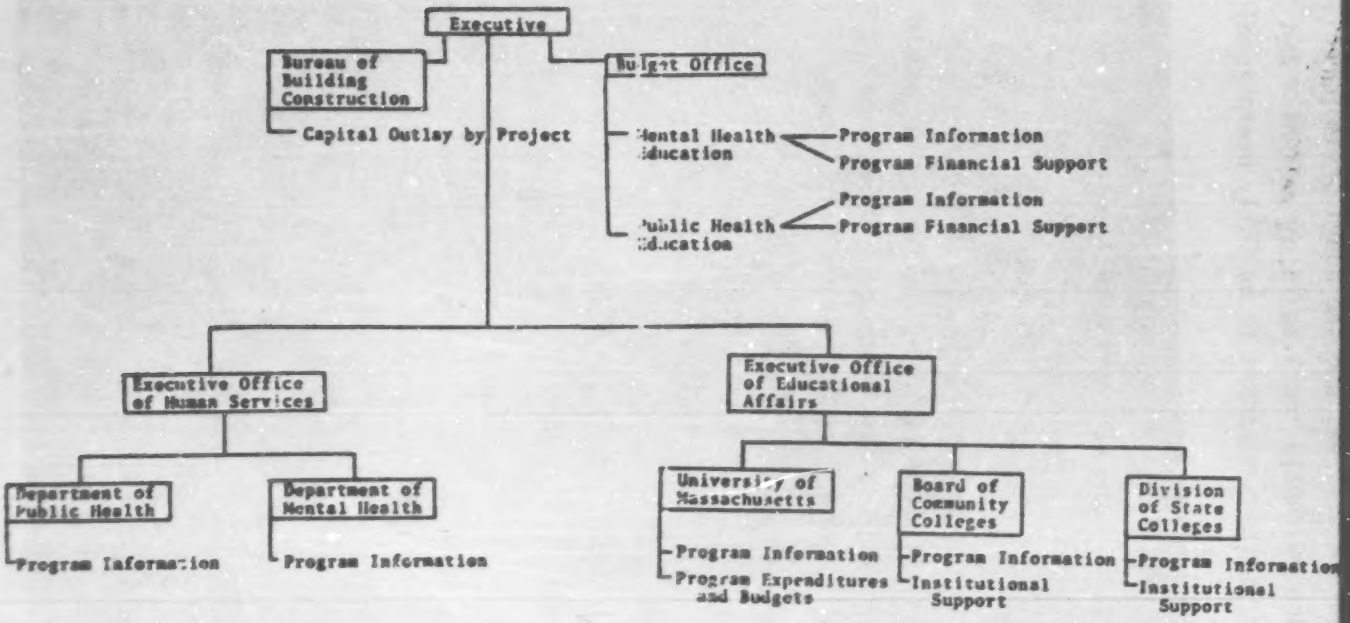

Figure 16: State of Massachusetts Government Units That Collect or Can Compile Data Relevant to Project Requirements

purpose bonds. Since The Capital Outlay Act does not define the purposes of projects,it is difficult to identify all projects that relate to health manpower training programs.

Capital outlay expenditures for the University of Massachusetts that are funded by University funds and that are not part of the State's general purpose bonds appear in the University's Financial Report.

Student Aid

No agency in Massachusetts is charged specifically with administering State funds for student aid. Some general aid money is given directly to the institutions, while an eight million dollar State scholarship fund is administered by the Board of Higher Education. Both distribute funds to all students, based on financial need. A separate scholarship program for students of medicine, dentistry and nursing ($385,000 - FY'74) is also funded by the State. Legislation requires that a minimum of 75 percent of total State funds for student scholarships go to students attending private schools. The present rate is 80 percent. To be eligible a student is not required to attend an in-State school.

Direct Support

Training programs directly supported by the State are administered by the Department of Public Health and the Department of Mental Health. The Department of Public Health supports eight physician residencies. However, data are not available at this time.

The Department of Mental Health operates a large psychiatric residency training program which currently has more than 100 positions. The residency program does not have a seperate faculty; teaching responsibilities are handled by the medical staff of the institutions. Since neither the State nor the hospitals operate under a program budget, detailed data on training costs are not available.

* The City of Boston

According to the City's budget bureau, the County of Suffolk and the

Table 0.1 SUMMARY OF STATE FINANCIAL SUPPORT FOR HEALTH MANPOWER EDUCATION PROGRAMS, MASSACHUSETTS

Health Manpower Support Programs	Expenditures FY'73	Appropriations FY'74	Program Information
Institutional Support			
1. University of Massachusetts			
Amherst			
School of Nursing		614,700	231 undergraduate, 53 graduate
Department of Public Health		335,709	280 undergraduate, 85 graduate
Worcester			
School of Medicine	3,217,269.43	4,700,000	104 students
2. Division of State Colleges			Due to a fire in the main office of the Division of State Colleges specific program and budget information is not available at this time. The appropriations cited here are aggregate figures for the operating budget of the school.
Boston State College	8,035,541	8,641,011	
Bridgewater State College	5,861,000	6,542,751	
Fitchburg State College	4,735,741	5,680,154	
Framington State College	3,599,750	4,271,931	
Lowell State College	3,415,666	3,999,129	
North Adams State College	2,302,000	2,937,888	
Salem State College	6,136,700	6,806,895	
Westfield State College	3,837,843	4,285,399	
Worcester State College	4,320,950	5,068,412	
Southeastern Massachusetts University	6,408,700	8,026,392	(Figures to be allocated)
3. Community Colleges			
Berkshire Community Colleges	1,892,400	2,122,606	Nursing (105 students) Envir. Health Assist. (78)
Bristol Community Colleges	1,940,495	2,359,837	Dental Hygiene (41), Medical Lab. Assisting (40), Nursing (155), Mental Health Tech.(65)
Bunker Hill Community College			
Cape Cod Community College	1,806,606	2,169,962	Nursing (117)
Greenfield Community College	1,505,433	1,768,108	Nursing (88), Community Mental Health Tech. (70)
Holyoke Community College	2,526,792	2,907,561	Medical Lab. Assisting (24), Nursing (123), Physical Therap. Asst. (17), Radiologic Tech. (29), Environ. Health Asst. (52)
Massachusetts Bay Community College	1,982,795	2,576,770	Medical Lab. Assisting (24), Nursing (93)
Massasoit Community College	2,076,600	2,290,513	Nursing (145)
Middlesex Community College	N.A.	N.A.	Dental Assting (24), Dental Hygiene (50), Med. Lab. Asst. (37), Nursing (51), Radiologic Tech. (47), Mental Health Tech (25), Medical Asst. (12)
Mt. Wachusett Community College	1,458,917	1,643,000	Nursing (68), Community Mental Health Tech. (62)
No. Essex Community College	2,498,000	2,899,357	Nursing (76), Radiologic Tech. (32), Comm. Mental Health Tech (43), Inhal. Therapy Tech.(25)
North Shore Community College	2,250,600	2,538,090	Nursing (147), Rehab. Tech.(68), Radiologic (60), Environ. Health Asst. (28), Inhal. Therapy Tech. (21)
Quinsigamond Community College	2,107,099	2,535,846	Dental Hygiene (43), Nursing (172), Occup. Therapy Asst. (46), Radiologic Tech. (40), Inhal. Therapy Tech. (37)
Roxbury Community College	N.A.	N.A.	
Springfield Tech. Community College	3,272,600	3,547,917	Nursing (108), Surg. Tech. (operating room tech.)(25), Physical Therapy Asst. (30), Dental Assisting (46), Dental Hygiene (42), Med. La. Asst. (30)
			(The expenditures and appropriations listed above are aggregate figures for total state support for operations.)
4. New England Board of Higher Education	118,825 425,000	163,707 467,500	(Health program enrollment data and costs per student by program area are being forwarded.) Indicates total Massachusetts appropriations to NEBHE

Table 0.1 (continued)

Health Manpower Support Programs	Expenditures FY'73	Appropriations FY'74	Program Information
Capital Outlay			
1. University of Massachusetts		2,025,820	Priacipal and interest on 1965 bond to Worcester Medical School
Worcester Medical School	2,025,820		
	1,105,000		Capital outlay - loan, books, and Land
Amherst	6,074,725		(To be allocated)
2. Division of State Colleges			Not available at this time
3. Community Colleges			Not available at this time
Student Aid			
Medical, Dental, and Nursing Scholarships	350,000	3 385,000	
Scholarships	8,000,000	9,500,000	
University of Massachusetts	850,000	1,680,000	
Division of State Colleges			
Boston State College	90,584	92,500	
Bridgewater State College	35,000	35,000	
Fitchburg State College	35,000	35,000	
Framingham State College	30,000	30,000	
Lowell State College	23,000	23,000	
North Adams State College	10,882	23,500	
Salem State College	45,000	45,000	
Westfield State College	33,000	39,700	
Worcester State College	34,158	34,158	(To be allocated)
Mass. College of Art	15,000	15,000	
Mass. Maritime Academy	--	25,000	
Community Colleges			
Berkshire Community College	15,542	17,542	
Bristol Community College	29,516	30,516	
Cap Cod Community College	19,344	21,344	
Greenfield Community College	16,000	18,000	
Holyoke Community College	15,221	17,221	
Massachusetts Bay Community College	12,742	13,742	
Massasoit Community College	20,000	22,000	
Mt. Wachusett Community College	8,878	8,878	
Northern Essex Community College	57,282	59,282	
North Shore Community College	34,330	37,330	
Quinsigamond Community College	11,463	15,463	
Springfield Technical Community College	20,000	24,000	
Middlesex Community College	5,000	8,424	
Direct Support			
Department of Public Health Residency	N.A.	N.A.	
Department of Mental Health Psychiatric Residency Program			
First year		277,200	33 students
Second year		417,100	43 students
Third year		308,000	28 students
Fourth and fifth year		45,000	9 students
TOTAL		1,047,300	

City of Boston are generally considered to be synonymous, since counties in Massachusetts are banking and judicial districts only and have no taxing authority on separate county governments.

There are no post-secondary health training programs in the City of Boston. Neither is there a City Scholarship fund or a student aid program.

The City budget identifies support to training in the Department of Health and Hospitals: a registered and a practical nursing program are fully supported, and an intern and residency program is partially supported. The City and the Boston University School of Medicine share the services and salaries of physicians, interns, and residents; this agreement provides the University with the facilities to train its interns and residents and provides the City with a medical staff at the Boston City Hospital. In FY 1974, the City provided a total of $2,220,203 in direct support for training programs in Boston City Hospital. Table Q.2 identifies City support for health manpower training in Boston.

Table 0.2

SUMMARY OF CITY SUPPORT FOR
HEALTH MANPOWER EDUCATION PROGRAMS, CITY OF BOSTON
FY 1973 and FY 1974

Health Manpower Training Programs	Expenditures FY'73	Expenditures FY'74	Program Description
Institutional Support	0	0	
Capital Outlay			
Boston City Hospital	N.A.	N.A.	(No expenditure can be directly related to health manpower training)
Student Aid	0	0	
Direct Support			
Boston City Hospital			
Training	2,673,644	2,220,203	
Intern and Residency Program			
Chief Resident	N.A.	368,728	26 positions
Senior Assistant Resident	N.A.	785,603	63 positions
Junior Assistant Resident	N.A.	835,193	73 positions
Resident	N.A.	727,595	55 positions
Intern	N.A.	653,626	61 positions

* MICHIGAN

The following agencies and offices were visited: (June 23-25, 1975)

* Department of Management and Budget
* Bureau of Higher Education
* Department of Public Health
* Department of Mental Health
* State Senate Fiscal Agency
* Department of Education

Figure 17 shows offices visited in the conduct of this site visit.

Although the data obtained were generally apporpriate to the needs of this study, it was not possible to identify direct support to institutions of higher education on a program basis. Each State-supported institution functions as an autonomous entity, receiving an annual State appropriation which is divided into broad program areas, such as "Health Instruction". Funds appropriated from the General Fund, after review by the Office of Management and Budget, are allocated for instructional programs on an unrestricted basis, with no requirement that they be expanded in a specific area. Consequently, State expenditures for specific direct institutional support, on a program basis, cannot be identified at State level but must be obtained from each individual institution.

Institutional Support

Currently there are 13 State-supported baccalaureate institutions and 29 State-supported junior and community colleges in Michigan. The State does not have State-supported post-secondary vocational-technical schools, since the community college system provides this level of instruction.

When the State Constitution was revised in 1963, it was provided that public 4-year baccalaureate institutions of higher education shall have their own individual governing boards having general supervision of the institution and control and direction of all expenditures. In addition, the Legislature is given an annual accounting of all income and expenditure by each institution. Financial support for public community and junior colleges is supervised and controlled by locally elected boards (either in local school districts or in separate community college districts).

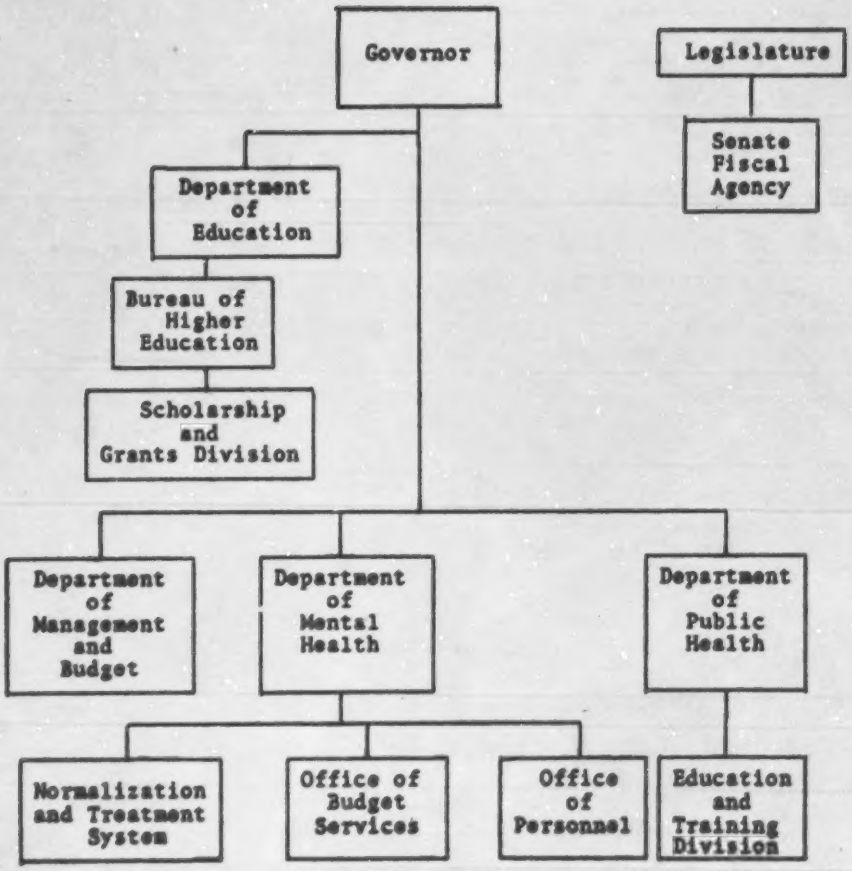

Figure 17: ORGANIZATION CHART OF OFFICES VISITED IN THE STATE OF MICHIGAN

The State Board of Education serves as general planning and coordinating body for higher education in Michigan, advising the Legislature concerning financial requirements of each publicly-supported institution, including community colleges, aided by the Advisory Board for Public Community and Junior Colleges.

Each institution submits its budget request on an annual basis, to the Office of Management and Budget (OMB) for review. Preliminary budget recommendations are presented to the Governor in November, then the Executive Budget is compiled and submitted to the Legislature. Appropriations are made to each school within each university from State General Funds. No FTE funding formula is currently employed for baccalaureate schools; however, the Senate Fiscal Agency is currently funding an ongoing study of medical and osteopathic education costs within the State. State funding to community colleges is based on a complex cost formula which uses "current year equivalent students" and accounts for programmic differences.

Capital Outlay

Information on capital outlay was obtained from the Office of Management and Budget. Capital projects are submitted initially for approval and initially authorized for the appropriation of planning funds. Architectural plans are monitored by the Bureau of Planning and reviewed by the Joint Legislative Capital Outlay Committee. Once approved, funds are appropriated from the General Capital Outlay Funds.

Student Aid

The Guaranteed Student Loan Program, established in 1960, provides low-interest, long-term loans for Michigan students. Students are eligible to borrow from local banks or other eligible lending institutions up to $1,000 per year for graduate study. The State competitive Scholarship program, created in 1964, provides winners with honorary certificates, and financial assistance equal to the tuition and fees at the college attended, not to exceed $800 per year. The Tuition Grant Program, established in 1966, aids students with limited resources to attend private colleges in Michigan.

Data was provided by the Department of Education's Division of Financial Aid on State Funds supplied to health education students.

Direct Support

Data on State funds for direct support was obtained from two departments - Public Health and Mental Health. The Department of Public Health funds State Training Programs and Family Practice residents. The Department of Mental Health funds Advanced Staff Training, Psychiatric residents, and the Ypsilanti State Hospital Child Psychiatry Training Project.

* MINNESOTA

The following agencies and offices were visited: (June 18-20, 1975)

* Higher Education Coordinating Commission
* State College Board
* University Board of Regents
* Department of Public Welfare
* Community College Board
* Department of Finance

The State College Board, University Board of Regents, and the Community College Board have sophisticated computerized data collection and reporting systems which gather comprehensive data pertinent to the study.

Institutional Support

The University of Minnesota supports health manpower education through its medical school, pharmacy school, dentistry school, veterinary medicine school, nursing school, and allied health programs. Each school within the University annually submits a budget request to the University Board of Regents, which makes appropriate recommendations, and forwards them to the Governor and General Assembly for financing. Monies are channeled to the various schools through the Board of Regents.

Minnesota's seven State colleges and its community colleges, are funded in a similar manner, but the appropriations are forwarded directly to the colleges themselves.

No data was available at the time of the site visit, but the University Board of Regents and the Community Colleges Board will forward data as soon as it can be obtained.

Capital Outlay

The University Board of Regents keeps limited aggregate data on capital outlays and is forwarding this data to the project staff. Efforts are being made to obtain additional information from the State Budget Agency and related State agencies.

Student Aid

Data on student aid to medical and nursing students was available from the Higher Education Coordinating Commission. Additional data on aid to students in health education programs is being compiled by the commission from in-house documents and will be forwarded.

Direct Support

Programs offered by the teaching hospitals, residency programs, and degree nursing programs, are supported either by the University of Minnesota or by State grants, and are under the supervision of the University of Minnesota.

* MISSOURI

The following agencies and offices were visited: (June 26-27, 1975)

* Department of Health
* Coordinating Board of Higher Education
* Coordinated Board of Higher Education
  Junior College Administration
* Comptroller and Budget Division
* State Department of Education
  Division of Industrial Education
* Division of Mental Health

Although the data obtained were generally appropriate to the needs of this study, the project staff was unable to identify direct support to institutions of higher education on a program basis. The Board of Higher Education was able to provide only financial data for over-all health instruction within each institution, without differentiation by specific field. Figure 18 shows offices visited during this site visit.

Institutional Support

There are presently 14 public senior and 12 public junior colleges receiving Missouri State funds. The Missouri Department of Higher Education is the primary financial controlling body in the State, conducting all planning and coordination for higher education, as well as providing annual fiscal review of budget requests. Recommendations are submitted by the Board to the annual appropriations review process - Comptroller and Budget Division, Senate and House Fiscal Agencies, and Joint Legislative Fiscal Agency.

An FTE funding formula is employed in the State of Missouri using the HEGIS taxonomy. The Board of Higher Education provided specific levels for health professions at each institution.

Capital Outlay

Recommendations for capital outlay come directly through the Board of Higher Education. Due to stabilized enrollments, the Board recommends deferment of all new construction until after 1980, and use of the interim period for replacement and rehabilitation of existing facilities. Capital

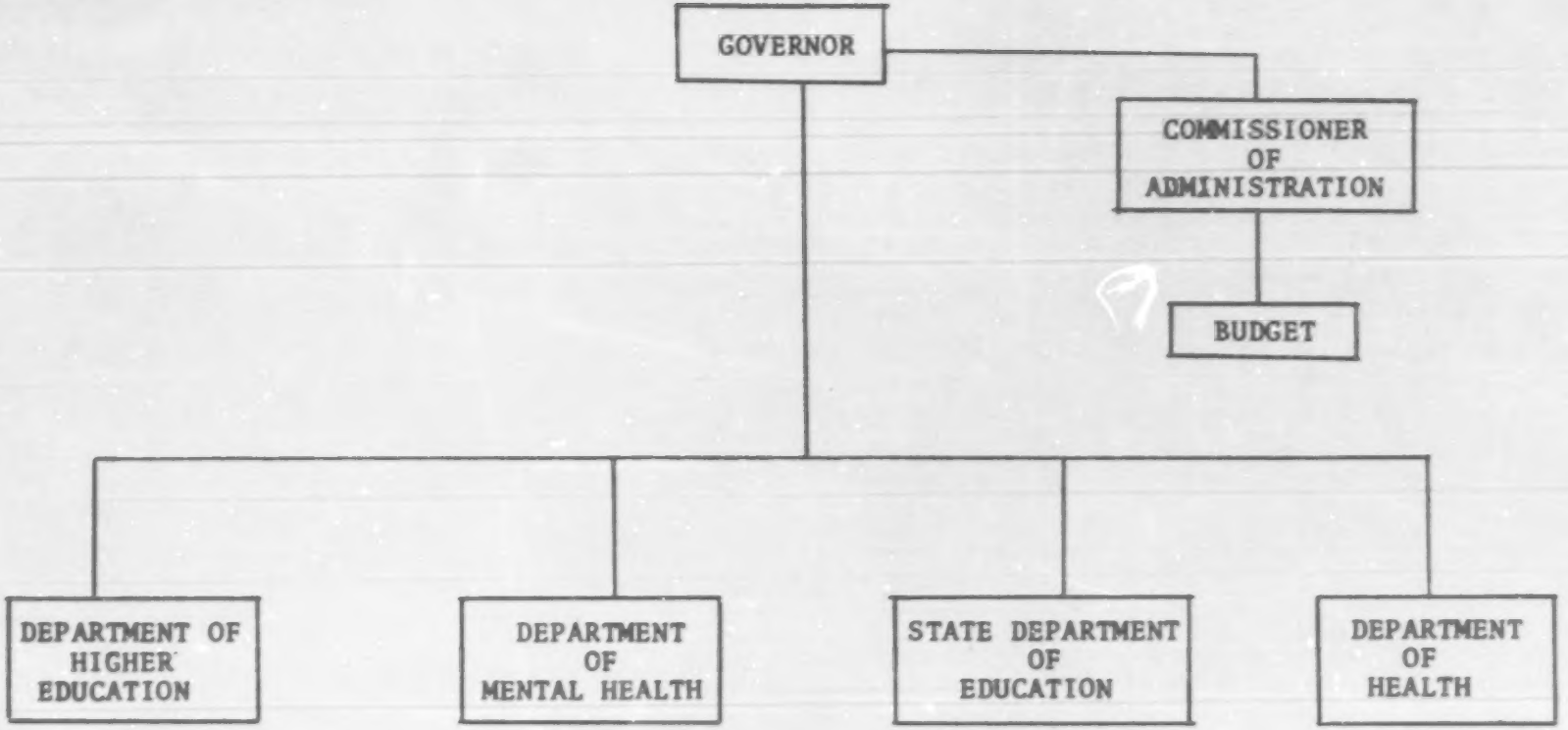

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Figure 18: ORGANIZATION CHART OF OFFICES VISITED IN THE STATE OF MISSOURI

outlay for junior colleges is locally funded, while instructional costs are partially funded locally.

Student Aid

Student aid could not be identified on a program level since all data are aggregated. The Missouri Student Grant Program provides financial assistance to qualified, full-time undergraduate students to pursue studies until the completion of a Baccalaureate Degree at approved public or private junior and senior colleges and universities located within the state. Applicants must be citizens of the United States and Missouri residents. The grant may not exceed the least of: (1) one-half the Fall 1971 tuition and required fees; (2) the applicant's demonstrated financial need as determined by the Department or (3) $900.

Direct Support

Information on Direct Support was obtained for two State departments:

State Department of Education, Division of Industrial Education - Vocational Schools and Junior Colleges, programs in health occupations.

Department of Mental Health - Work-Study Program, Certification Training, Dieticians, and a Psychiatric Residency Program. The extensive psychiatric aide and LPN programs receiving State funds are locally controlled, and data are not available at the State level.

* NEBRASKA

The following agencies and offices were visited: (May 14-15, 1975)

* Board of Regents of the University of Nebraska System
* Department of Finance, University of Nebraska Medical School
* Budget Office - University of Nebraska Medical School
* State Board of Technical and Community Colleges
* Board of Trustees of Nebraska State Colleges
* Executive Budget Office
* Department of Public Institutions

The site visit improved upon the data previously identified, and, in terms of institutional support, provided detailed breakdowns of these data by school and by program.

Institutional Support

There are three major educational systems involved in the training of health manpower: the University of Nebraska system, public State colleges, and community colleges.

The University of Nebraska, at Omaha, maintains the only public school of medicine in the State, offering programs in medicine, nursing, pharmacy and allied health. State colleges and community colleges provide nursing, pre-medicine, pre-dentistry and related courses. Community colleges also offer programs in most allied health occupations.

The University of Nebraska's medical school and the four State colleges are funded in the same manner. Schools submit budget requests through their Board of Regents of Board of Trustees for review prior to submission to the State for funding.

Until June, 1975, community colleges were funded in a similar manner. Now, under a new law, community colleges send their budget requests directly to the State for funding

Capital Outlay

The University of Nebraska was able to provide information an capital expenditures, in detail. No capital outlay monies were expended for State colleges. Data concerning capital outlays for community colleges is being

compiled and will be forwarded.

Student Aid

Limited financial assistance is provided to students through a few scholarship programs operated by the University of Nebraska.

Direct Support

The Department of Public Instruction provides some aid to employees who enroll in health education degree programs.

* NEW JERSEY

The following agencies and offices were visited: (March 13-14, 1975)

* State Budget Agency
* Department of Higher Education
  - Office of Budget and Fiscal Planning
  - Office of Research
  - Office of Community Colleges
  - Office of State Scholarship Programs
  - Office for Independent Colleges and Universities
  - Office for Health progessions Education
  - Office for Health Manpower
* Department of Health

These agencies were implemental in developing an accurate and comprehensive overview of the level of State support to train health provessionals. Figure 19 is an organizational chart showing the relationships of the State offices visited in New Jersey.

Institutional Support

Five principal educational systems are involved in training of health manpower. These are: College of Medicine and Dentistry of New Jersey (CMDNJ); State College system; Community College system; Rutgers, the State University of New Jersey; and private colleges and universitites.

Of these systems, the most comprehensive is the College of Medicine and Dentistry of New Jersey. The CMDNJ system comprises New Jersy Medical School, Rutgers Medical School, New Jersey Dental School, CMDNS Nursing School, and CMDNJ Allied Health School. Two teaching hospitals are affiliated with the New Jersey and Rutgers medical schools.

The State college system in New Jersey is made up of eight schools, three of which - Trenton State College, Paterson State College, and Stockton State College - offer nursing programs, with internships in local hospitals. The community college system is a widespread network of schools offering allied health training programs leading to the Associate's degree.

Rutgers, the State University of New Jersey, operates a school of nursing and a college of pharmacy, totally independent of programs offered at the Rutgers Medical School.

The College of Dentistry, operating at Fairleight Dickinson University, is the only private school receiving State support for health training programs.

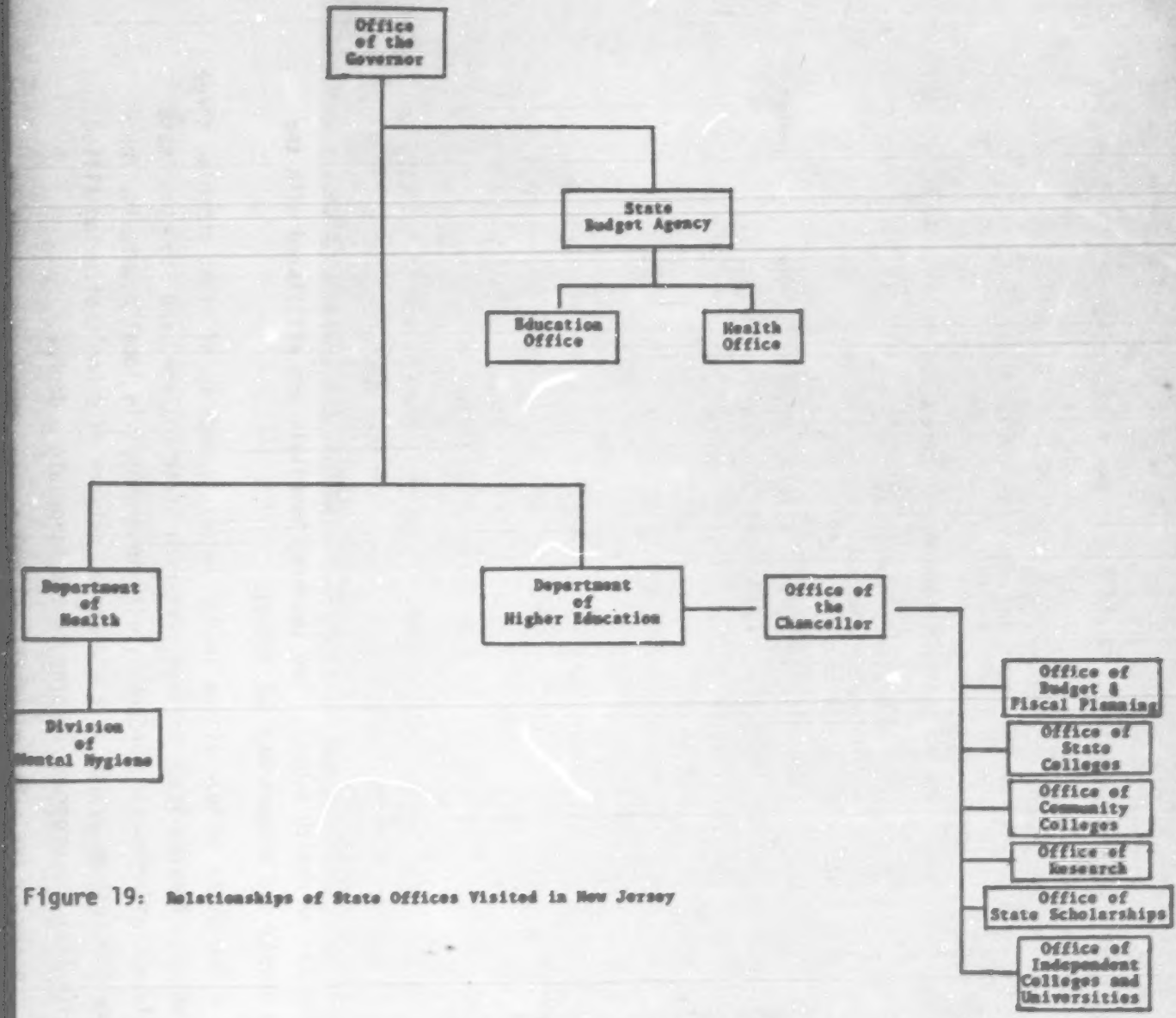

Figure 19: Relationships of State Offices Visited in New Jersey

Since the State does not participate in out-of-State student exchange, no funds are expended for this purpose.

Funding for CMDNJ and State colleges is provided through use of the State's general fund, comprised of student tuition and general fund appropriations. CMDNJ , the three State colleges, and Rutgers, the State University, are provided funds based upon past expenditures and current requests. School budgets are reviewed by the Department of Higher Education and forwarded to the State Budget Agency for final review and approval.

Community colleges are funded in an entirely different manner. Their support is based upon full-time equivalent (FTE) enrollment. Regardless of school or major field of study, the State provides $600 per FTE student. Therefore, based upon enrollment data, it is an easy task to determine the level of State support for allied health programs in community colleges.

The dentistry school operated at Fairleigh Dickinson University is provided a flat grant from the State.

Data on State support for health manpower training was available only in an aggregrate form from the State Budget Agency. The Office of Budget and Fiscal Planning, Department of Higher Education, was most helpful in providing detailed expenditure data for this training.

Enrollment data, by program, in all community colleges for FY 1973 was provided by the Office for Health Manpower. The Office of Research, Department of Higher Education, agreed to compile and tabulated enrollment figures for fiscal years 1974 and 1975.

Information on Fairleigh Dickinson University was supplied by the Office for Independent Colleges and Universities.

Capital Outlay

Limited information on State-supported capital outlays in health programs was identified. A few aggregate figures were obtained from the State Budget Agency for capital outlays at CMDNJ. Efforts are being made to obtain additional information from the State Budget Agency and the Department of Higher Education.

STUDENT AID

Due to the fact that needed data on student aid programs are stored on computer tapes, a written request was needed to obtain authorization from the State for retrieving it. Upon authorization, the data was provided by the Office of Financial Assistance.

DIRECT SUPPORT

In 26 hospitals across the State, the Health Department operates training programs for nurses. The program provides tuition for graduate training to nurses currently working in the hospitals and money for replacements while the nurses are in school.

The Department of Higher Education provides funds specifically for two training programs: The Veterinary Medicine Program, for training in this field, and the Nursing Education Program, which provides specific funds to schools for aid in the training of nurses.

* NEW YORK

The following agencies and offices were visited: (June 23-25, 1975)

* State University of New York
* State Department of New York
* Department of Mental Hygiene
* University of the State of New York
* State Board of Nursing
* State Division of the Budget

Institutional Support

In the State of New York, there are three major educational systems that are involved in the training of health manpower. These are: State University of New York (SUNY), the University of the State of New York, and City University of New York (CUNY). The SUNY system comprises all public institutions in the State, including universities, State colleges and community colleges. The University System of the State of New York includes colleges and universities in New York City.

There are four public medical centers in the State of New York that provide training in the fields of medicine, dentistry, pharmacy, nursing, optometry and allied health. These are: SUNY at Buffalo, SUNY at Stony Brook, Downstate Medical Center at Brooklyn, and Upstate Medical Center at Syracuse.

Public universities, colleges and community colleges in the State of New York are all funded via the use of lump-sum appropriations. The schools request a certain level of support, which is reviewed by the State University of New York (SUNY system) and the State Budget agency.

Lump sum appropriations are also provided for current operations to several private medical schools. These include: Albany Medical College, Columbia University (Medicine and Dentistry), Cornell University, Mount Sinai School of Medicine, New York University (Medicine and Dentistry), University of Rochester, and Yeshiwa University.

Such funds make possible expansion of medical programs without drastically increasing costs for capital construction and for initial set-up of new medical schools.

Capital Outlay

All funds for expansion or repair of health-related facilities are provided through a determination of need by the SUNY system. Requests for capital construction are forwarded to the Governor and to the legislature for final review and approval. As a part of the capital construction, funds are also provided to private schools by the University of the State of New York system on a lump-sum basis.

Student Aid

The State of New York provides limited financial support for students in the health professions. Since most scholarship programs are provided to needy students regardless of major field of study, it is extremely difficult to identify those students in the health professions receiving scholarships.

The New fork State Board of Nursing provides scholarships to approximately 600 to 800 students in the nursing profession, at the rate of $250 per year.

The Department of Mental Hygiene operates a tuition reimbursement program for persons working towards degrees in their professions.

Direct Support

The Department of Mental Hygiene in the State of New York is the major agency involved in the direct support of health training programs:

Approximately 300 residents are enrolled in a 3-year psychiatric residency training program operated in numerous hospitals across the State, and supported at the rate of approximately $629,000 per year.

Twelve schools of practical nursing at twelve psychiatric hospitals have been operated by the DMH since 1970 and provided approximately $4,000,000 per year. However, begining with FY 75, this program will be phased out over a three year period.

Another program operated by the Department of Mental Hygiene is The Regional Training Teams program, which terminated May 14, 1975 and was involved in training individuals in geriatric care and in techniques for working with the mentally retarded. Annual funding (FY 1972 - FY 1975)

involved in training individuals in geriatric care and in techniques for working with the mentally retarded. Annual funding (FY 1972 - FY 1975)amounted to $625,000.

Hospital Administration Intern program now in operation provides salaries to residents in psychiatric hospitals at the rate of approximately $150,000 per year.

* NORTH CAROLINA

The following agencies and offices were visited: (April 23-25, 1975)

* General Administration University of N.C. System
* Continuing Education in Nursing
* Department of Community Colleges
* Allied Health Programs
* Student Financial Assistance
* Office of Research N.C. Board of Regents
* Department of Human Resources

Institutional Support

There are six major educational systems involved in the training of health manpower. These are: University of North Carolina Medical School, other public universities, public State colleges, community and technical colleges, Duke University, and Bowman-Gray Medical School. The only support provided to private institutions is a grant of $15,000 per FTE North Carolina student enrolled in medical schools at Duke and Bowman-Gray.

The University of North Carolina at Chapel Hill maintains the only public medical school in the State. The School of Medicine comprises programs in medicine, dentistry, nursing, pharmacy and public health, and operates a teaching hospital.

East Carolina State University currently operates a 1-year medical program, which has been in operation for three years.

A significant amount of State support is provided for nursing and allied health programs at State colleges and community and technical colleges.

Funding for educational systems is provided in either of two ways. In the case of the UNC Medical School, a lump-sum appropriation is provided. The medical program at East Carolina State University is funded in a similar fashion.

All nursing and allied health programs operated at the community and technical college level are funded on a cost-per-student formula, which is used to provide appropriations per FTE student in the school.

Capital Outlay

Limited detailed information was provided on capital expenditures. Data on lump-sum expenditures for the School of Medicine at the University of North Carolina was available but detailed breakdowns by specific programs were not. Therefore, allocation methodology was used to determine an approximation of these expenditures by program.

Capital construction expenditures are funded by general obligation bonds.

Student Aid

North Carolina provides limited financial assistance to students, other than guaranteed loans. A medical scholarship program operated by the Board of Governor's was initiated in fiscal year 1975.

Another scholarship program, operated in conjunction with the Southern Regional Education Board (SREB), offers assistance to students in the health professions who are studying in out-of-State schools.

Direct Support

The Department of Human Resources provides capitation grants , $850 per FTE student, for students in hospital-based diploma nursing programs usually for three years. Other programs include mental health and other health manpower development.

* OHIO

Although expenditure data were obtained by department area (e.g., allied health) from the various offices in the State, no breakdowns were provided by specific program areas.

Agencies and offices visited were: (April 1-3, 1975)

* Department of Management and Budget
* Ohio Board of Regents
  - Office for Health Manpower Education
  - Student Assistance Office
* Department of Mental Health and Mental Retardation
  - Division of Training
  - Office of Manpower Research
* Department of Health
  - Division of Training

Figure 20 shows an organizational chart of these offices visited.

Institutional Support

The Ohio system of higher education comprises numerous institutions ranging from 2-year community colleges to universities. Specifically, the higher education system in Onio is made up of: public universities, private and independent universities, 4-year colleges, community colleges, technical colleges, and combined general and technical colleges. All of the above institutions are funded utilizing similar methods, except independent and private universities.

Funding for public universities, 4-year colleges and 2-year colleges is based upon a cost formula devised by the Ohio Board of Regents. Through fiscal year 1975, this formula had as its base the number of full-time equivalent (FTE) students, with no differentiation made as to the level or intensity of instruction received by the student. As of 1976, however, there are three levels of study in a particular program, each receiving a different level of support. This new formula provides a more equitable distribution of funds, greatly increasing the effeciency of the allocation process.

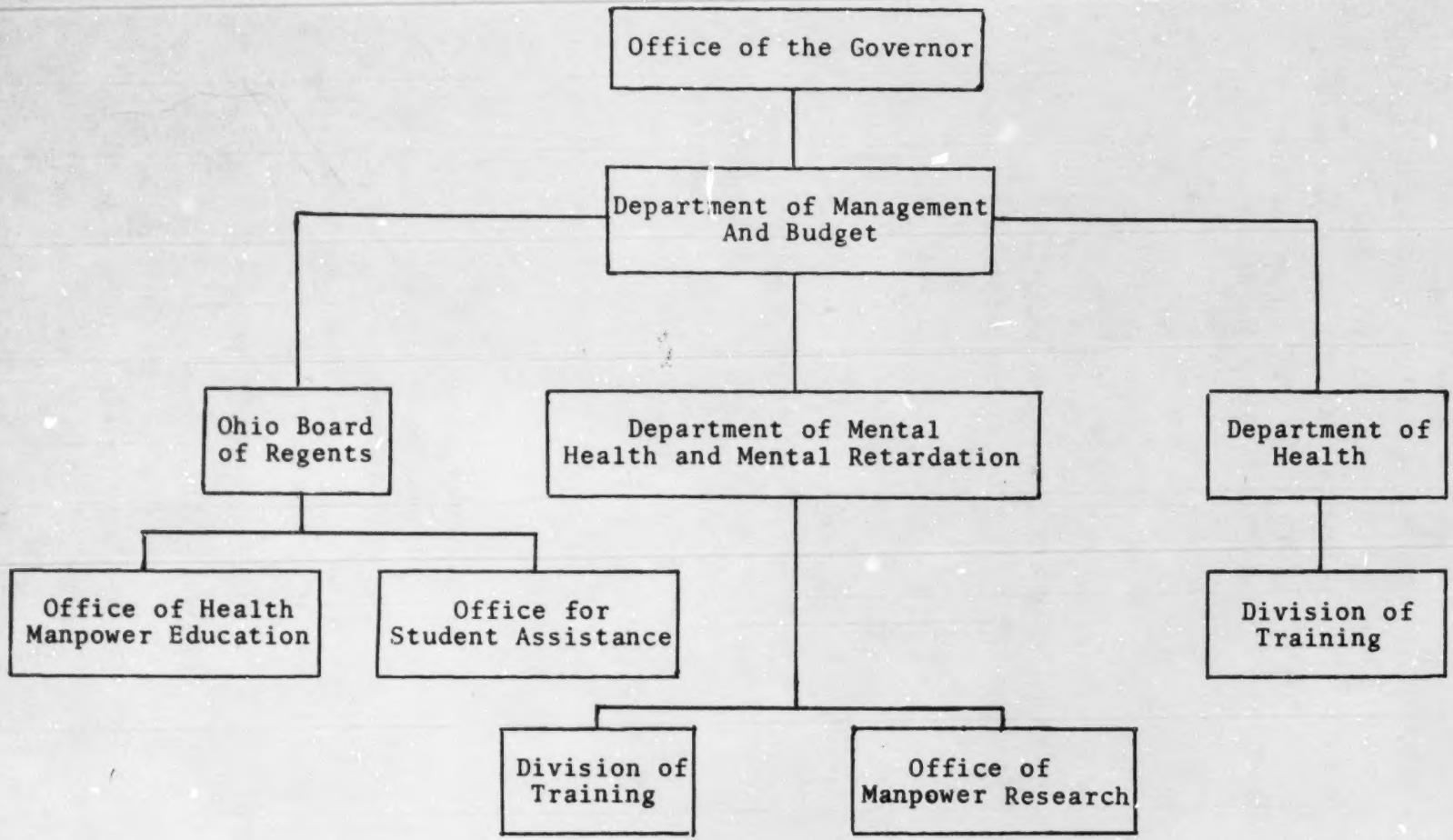
Office of the Governor
Department of Management And Budget
Ohio Board of Regents
Department of Mental Health and Mental Retardation
Department of Health
Office of Health Manpower Education
Office for Student Assistance
Division of Training
Division of Training
Office of Manpower Research

Figure 20 : ORGANIZATION CHART OF OFFICES VISITED IN THE STATE OF OHIO

Independent and private colleges and universities are provided appropriations based upon needs and requests, no formula is used for calculating amounts. Four major private or independent universities receive State funds. These are: Medical College of Ohio at Toledo, Northeastern Ohio Universities College of Medicine, Wright State University School of Medicine, and Case Western Reserve University Colleges of Medicine and Dentistry.

Capital Outlay

Expenditures for capital outlay are either general or restricted funds. Funds provided for capital expenditured at educational institutions could be identified, and attempts are being made to obtain detailed program information.

Direct Support

The only State-supported programs for training of health professionals in Ohio are operated by the Department of Mental Health and Mental Retardation. Included among these programs are training for psychologists, psychiatric residencies, psychiatric aides, and mental health technicians. Data obtained identified all programs and enumerated the numbers of students enrolled in each. These programs are funded through the Department, which reviews individual programs, and makes recommendations to the budget agency.

Student Aid

The Board of Regents operates a program of student aid entitled the Ohio Instructional Grants Program, designed to assist low and middle income students enrolled for full-time undergraduate study in eligible institutions of higher education. These instructional grants are not awarded upon for scholarship, but upon the basis of need.

The State also operates a Guaranteed Loan Program for Ohio students.

The Board of Regents provided data in aggragate form, including total amounts of instructional grants, by school, and total number of students receiving aid. State financial assistance for the training of health manpower was based upon the percentage of students in health programs.

* OREGON

The State actively supports the training of most medical professions in in-State universities, colleges, and junior colleges. In addition, Oregon contributes to the Western Interstate Commission on Higher Education (WICHE) for training of Oregon students in out-of-State occupational therapy, physical therapy, podiatry, and optometry programs.

Data concerning State expenditures for training of medical professions at the university and college level were readily available from the Chancellor's Office, State Board of Higher Education. However, data on the amount of State support for the training of allied health professions at the community college level was not readily available. As a result, the Department of Education employed an allocation methodology to approximate amounts of funding to the varied allied health training programs in the State's community colleges.

Agencies and offices visited include: (April 7-10, 1975)

* Executive Budget Department
* Department of Education
* State Board of Higher Education
* State Scholarship Commission
* Department of Human Resources
* Oregon State Health Planning Department
* Division of Mental Health

Institutional Support

Senior colleges, universities, and community colleges are funded on a biennial basis after making budget requests through the Board of Higher Education, which reviews them and submits them, with appropriate recommendations,to the Governor's office for funding.

The Board of Higher Education was able to provide information on appropriations for the training of health manpower at the State's colleges and universities. In addition, the Department of Education provided data on programs of medicine, dentistry, nursing, X-ray technology, and medical technology at the University of Oregon's Health Services Center.

The Department of Higher Education submits budgets of the 13 community colleges to the General Assembly and to the Governor for funding.

It also makes recommendations to community colleges concerning their course selections, so that students throughout the State may have a uniform selection of courses and programs.

Although the Department acts mainly in an advisory capacity, it does record total clock hours per program in all community colleges. The Department employed an allocation methodology to obtain approximate amounts of State funding for total allied health manpower training programs in each community college.

Capital Outlay

Data concerning capital outlays for the University of Oregon's Health Center was available from the State Baord of Higher Education.

Student Aid

Although student aid is awarded through four types of programs administered by the State Scholarship Commission (the State Grant Program, the State Need Grant Program, the Guarantee Student Program, and the "Purchase of Educational Services Program") it was not possible to identify State monies given to students enrolled in medical programs, because applicants are not required to identify the program in which they are enrolled.

Direct Support

Direct support for health manpower education programs comes from the Department of Human Resources. Of the eight divisions under the Department, the Mental Health Division is the only one that provides support for health manpower education programs. Most of these are for in-service training of psychiatrists, psychiatric aides, and the like. Summary data available from the Division was fairly detailed.

* PENNSYLVANIA

State government agencies and offices visited in Harrisburg were:
(March 11-14, 1975)

* Office of the Budget
  - Capital Budget Division
* Pennsylvania Higher Education Assistance Agency
* Department of Public Health
  - Bureau of Health Education
    - Division of Professional Education
    - Division of Comprehensive Health Planning
* Department of Public Welfare
  - Office of Medical Services
    - Division of Hospitals
* Department of Education
  - Bureau of Higher Education Planning
    - Division of Budget and Fiscal Systems
    - Division of Two Year Programs
* Department of Labor and Industry
  - Bureau of Vocational Rehabilitation
* General State Authority
  - Higher Education Facilities Authority
  - State Public School Building Authority

Philadelphia City (County) government offices visited were:
(March 14, 1975)

* Office of Director of Finance
  - Budget Division
* Department of Health
* Philadelphia General Hospital
* Philadelphia Department of Public Health

In summary, the available data related to State support of health manpower training in Pennsylvania can be summarized as follows:

Institutional Support

- 14 State-Owned Colleges and Universities (by institution)
  - Health Profession Training
  - Health-Related Technologies
  - FTE Students and Degrees Conferred
- 16 Community Colleges (by institution)
  - Health-Related Technologies
  - FTE Students
  - Total Local (allocated)

Data on Health Professions, School of Medicine, FTE Students, and Degrees Conferred for the following:

- Pennsylvania State University
- University of Pittsburgh
- Temple University
- University of Pennsylvania
- Hahnemann Medical College
- Thomas Jefferson University
- Medical College of Pennsylvania
- Pennsylvania College of Podiatric Medicine
- Pennsylvania College of Optometry
- Philadelphia College of Osteopathic Medicine
- State General Hospitals
  - Training Program Expenditures
  - Number of Students
- Mental Hospitals
  - (Need to contact institution)

Student Financial Aid

- Hospital Nursing Program
  - Dollar Amount
  - Number Recipients
- Total Amount by Type of Higher Education Institution
  - (Needs to be allocated)

Institutional Support

Financial support to institutions of higher education that conduct Health Manpower training is available through the State Budget Office. The Budget Office, in conjuction with the Department of Higher Education and State-supported higher education institutions, has developed a financial reporting system, by program category. This system corresponds to the Higher Education General Information System (HEGIS) program classification taxonomy, including specific categories for "Health Professionals" (Dentistry, Veterinary Medicine, Pharmacy, and others) and "Health and paramedical Technologies" (Allied health and related areas). Schools of medicine submit a separate budget distinguishable from other training areas.

The Budget Office can provide program budgets for each institution, although two HEGIS program classifications (Health Professions and Biological Sciences) are combined in reporting expenditures. Through these individual

budgets, the exact amount used for health manpower training can be isolated. Requested budget documents contain the State expenditures for fiscal Year FY '73 and apporved budget requests for FY '74. The Program budget also shows FTE enrollment and degrees conferred at baccalaureate level and above for the Health Profession category and degrees conferred for medical school graduates.

Data on local support to the community colleges, although not on a program basis, are also available from documents submitted to the State Budget Office. Other institutions of higher education do not receive support from local governments.

The Division of Two-Year Programs, Bureau of Academic Programs, and Department of Education annually compiles a DIRECTORY LISTING CURRICULUMS OFFERED IN THE COMMUNITY COLLEGES OF PENNSYLVANIA, giving student enrollment for each specific health manpower training program by institution, and number of students completing these programs for the previous academic year. Data in this study was obtained from the DIRECTORY for academic year 1972-73, the latest edition. The updated edition for FY '73-74 will be available by June 1975 and will cover enrollment for FY '73-74 and graduates for FY '73.

Various hospital and mental health institution training programs that receive State financial support were identified through interviews with State officials in the Department of Public Welfare, Office of Mental Health, and Office of Medical Services.

The Department of Medical Services in the Department of Public Welfare is primarily responsible for development and coordination of health care services and programs throughout the Commonwealth. The only direct funding for health manpower training (which is out-of-scope for this study) is a pass-through appropriation of $50,000 from the Department to the University of Pittsburgh which is used for short-term courses for up-grading nursing home personnel.

Various health training programs are conducted at nine State-owned general hospitals. They include four Nursing Schools, Medical Technologist Program, and a Lab Technician Program. These programs receive no "direct"

support other than State support to the hospital, from which the hospital budgets these programs. Data on expenditures for the four nursing programs and number of students for each program are available and is to be collected and forwarded. Support of training programs conducted at State-owned and operated hospitals will require special data collection techniques differing from those used for institutions of higher education.

Mental institutions conducting health training programs do not report the amount expended for health training. For this data, specific institutions, identified by the State office, will need to be contacted.

The Offices of Mental Health, Department of Mental Health is responsible for administration of State mental institutions, some of which are involved in health manpower training and receive State support through general operating appropriations. However, detailed data are not available.

The Eastern Pennsylvania Psychiatric Institute in Philadelphia is the largest mental health training institution in Pennsylvania. The following training programs are offered: Behavioral Therapist, Family Therapist, Psychiatric Resident , Psychiatric Nurse, Psychiatric Social Worker, Child Psychiatry, Family Guidance, and Post Graduate-Child Psychiatry.

Through Professional Education Program (PEP) designed to further education of EPPI employees, students receive 80 percent of their salaries plus tuition and expenses. Most of the training programs offered by EPPI are less than two years and thus out-of-scope for the purposes of this inventory.

Training-related expenses are not ordinarily separated out but are included in the operating budget. Efforts are being made to calculate training-related expenditures and the portion of the facility utilized for training purposes; it will be forwarded. Such data are not readily available and would require a special cost study each year.

The Western Pennsylvania Psychiatric Institute and Clinic operated by the University of Pittsburgh conducts many health manpower training programs. For detailed expenditures and program data the institution would need to be contacted. However, in the State budget, there are line item appropriations to these institutions for "Manpower Development."

Student Financial Aid

Student financial aid is administered by the Pennsylvania Higher Education Assistance Agency. Some scholarships are given to enable students to attend schools of nursing conducted at various hospitals in Pennsylvania. Data on the number of students and dollar amounts are to be provided.

Scholarships going to students attending higher education institutions and those training in the health field are not available from a central source; individual institutions would need to be contacted for this information.

Loans provided through this agency in the form of "State guarantees" are broken down by number of recipients in the field of nursing and health professional training. Direct State appropriations are limited to those instances where the loan is in default.

Capital Outlay

Four organizations were identified with capital expenditures directly related to health manpower training: 1) the Pennsylvania Higher Education Facilities Authority that issues bonds to finance construction for private institutions; no State funds are expected; 2) the State Public School Building Authority that receives State funds, 3) the General State Authority that administers State-financed construction projects, and 4) the Capital Budget Division of the Office of the Budget. Only construction of facilities related specifically to health manpower training (such as medical schools) can be identified and information is currently being compiled.

Direct Support

The Bureau of Health Education, State Department of Health, provides funds for employees to obtain graduate training in various health fields related to their particular job requirements and needs. The Bureau operates with approximately an $800,000 per annum budget and supports various employee education programs. An itemized Bureau operating budget, with program descriptive data, is being provided.

The Bureau of Vocational and Technical Education, Department of Education, is provided with apporximately $4 million per annum for the support of various health vocational training programs throughout the State. Data on FY 1973 expenditures, FY 1974 budgeting amounts, and number of students being trained for each program two years or more in length was available. Two 2-year programs in X-ray technology program and a medical laboratory assistant program at the post-secondary level have been identified.

Health Manpower Planning and Research

Currently, there are no Health Manpower Planning and Research projects funded explicitly by or through State appropriations.

The Division of Comprehensive Health Planning although is not presently engaged in any health manpower planning and/or research projects should be contacted in the future as a likely State agency for conducting such research projects.

* SOUTH CAROLINA

The following agencies and offices were visited: (April 29-May 1, 1975)

* Department of Mental Health
* Technical Education Centers and Colleges
* High Education Commission
* State Tuition Grants Agency
* Department of Health and Evnironmental Control
* State Executive Budget Agency

The State budget for fiscal years 1973 and 1974 outlined general expenditures for the Medical University of South Carolina's schools of medicine, pharmacy, nursing and dental medicine. In addition, allied health programs were identified at eight State colleges.

Most of the support for health education programs comes through the University of South Carolina. Most health education programs offered by other State schools are for nursing or allied health.

Institutional Support

In South Carolina, there are five State educational systems that support health manpower education programs: University of South Carolina, South Carolina State University, Medical University of South Carolina, State technical education centers and colleges, and the State College System.

The University of South Carolina, South Carolina State University, Medical University of South Carolina and the State College System are funded through the Higher Education Commission, which reviews budget requests prior to submission to the Governor and general assembly for funding. Each school is funded according to a set allocation per full-time student.

The Medical University of South Carolina encompasses schools of allied health, nursing, pharmacy, dentistry, medicine, and graduate study. There is no funding differential made between various program curriculums. Departments are funded by the set appropriation-per-student times the number of students enrolled in the cirriculum. University budgeting procedures do not provide breakdowns on amounts of funds dispersed within the various departments of the medical school. Only lump-sum appropriations per fiscal year are identifiable.

South Carolina State University and schools that make up the State college system are funded in the same manner as the Medical University of South Carolina.

The 16 technical education centers and colleges in the State of South Carolina are funded through the Technical Education Centers and Colleges Agency, which reviews budget requests and forwards them with its comments to the State for funding.

Capital Outlay

Specific information on capital outlay for new projects, renovations and equipment for the Medical College of South Carolina was identified. However, because of the State budgeting system, data concerning capital outlays for health-related programs could not be broken out for State colleges and South Carolina State University.

Student Aid

All student aid is granted solely through the State Tuition Grants Agency and is based on financial need. Since students are not required to identify the program of study in which they are enrolled, aid granted to students in health manpower education programs could not be identified. Data on the total number of students receiving aid and the total amount of money being let by the Agency is being assembled. By employing an allocation methodology it will be possible to identify approximate amounts of tuition grants awarded to students enrolled in health manpower training programs.

Direct Support

The Department of Health and Environmental Control and the Department of Mental Health support health manpower training programs. The Department of Mental Health supports residency training programs, nursing programs, and work leave programs. All their program data is computerized and highly accessible.

* TENNESSEE

The following agencies and offices were visited: (May 13-15, 1975)

* Department of Finance and Administration
* Health Professions Department of Higher Education
* Department of Public Health
* Department of Mental Health
* Division of Vocational-Technical Education
* Tennessee Student Assistance Corporation

Institutional Support

In Tennessee, five major educational systems are involved in the training of health manpower: University of Tennessee Medical Units, other public universities, public State colleges, community colleges, and private colleges and universities.

Private schools do not receive operating support.

Until recently the only public medical school in the State was the Medical Units at the University of Tennessee in Memphis. The Medical Units provide training in the fields of medicine, basic medical sciences, dentistry, pharmacy, allied health, and nursing. In FY 1974, however, a new medical school was initiated at East Tennessee State University.

Public medical schools are funded with a lump-sum appropriation. Requests for funds are submitted to the Higher Education Council for review, then forwarded to the Department of Finance and Administration for final review and approval.

All nursing and allied health programs are funded through the use of a cost-per-student formula developed by the Higher Education Council that takes into account costs of instruction, departmental research, and administrative and library resources.

Capital Outlay

Funding for capital construction is provided by any of three sources: State general obligation bonds, school bonds, or Federal grants. The major portion of expenditures for capital construction in the health field are obtained from general obligation bonds.

Each institution submits a list of capital projects for which funds are being requested to the Higher Education Commission for review, after which they are forwarded to the Governor and to the legislature for review and approval.

As a part of the capital construction process, Tennessee has implemented a program whereby all institutions submit to the Higher Education Commission a 5-year building and campus development program, which is updated annually.

Student Aid

The only program operated by the State is a guaranteed student loan program.

Tennessee has contributed close to $200,000 annually for the past three fiscal years for its involvement in the Southern Regional Educational Board programs which provides aid to students in schools in other participating States as well as to students in private schools within the State.

Direct Support

The Department of Mental Health operates two programs that are directly involved in the training of health manpower. Approximately $100,000 has been expended in each of the past three fiscal years to provide stipends for education of personnel working in State psychiatric and mental retardation centers.

The Department reimburses students at Meharry Medical School, Vanderbilt, and the University of Tennessee Medical Units at a rate of $36,000 per year for psychiatric residents.

* TEXAS

The following agencies and offices were visited: (Feb. 19-20, 1975)

* Texas Education Agency
* Coordinating Board of Texas College and University System
* Board of Regents of the University of Texas System
* Department of Mental Health and Mental Retardation
* Texas Executive Budget Office
* Texas Legislative Budget Office

The aforementioned agencies were able to provide most of the data needed for the study, although much of the data was in untabulated form on inhouse documents.

Institutional Support

State colleges and universities are funded directly by the State on an annual basis. Budget requests are made through individual Boards of Regents, which review the requests and submit them to the State for review and funding. Although the legislature meets biennially, the institutions are funded annually.

The Board of Regents was able to provide detailed breakdowns on the amount of State monies appropriated for the training of health manpower at the University of Texas. For the remaining State colleges and universities, breakdowns of direct State support could only be obtained by examining each institution's biennial budget request.

State junior colleges are funded in a similar manner to the State's colleges and universities, except that the Texas Education Agency acts as board of regents for the State's 55 junior colleges. Each junior college must submit and negotiate its budget request with the Texas Education Agency, which then submits it to the State for funding. Monies appropriated are paid on an annual basis.

Data on State appropriations to junior colleges under the Texas Education Agency was broken out per program in each institution. Enrollment data per program for each institution was also provided by the Agency.

Enrollment data, by program, are available for the senior colleges and universities from the Coordinating Board of Texas College and University

System. Similar enrollment data for junior colleges may also be obtained from the Texas Education Agency. However, numbers of students in each program are not available.

Capital Outlay

Information on capital outlay funding to schools of higher education was very limited, because there is no State agency responsible for gathering such data. Therefore, it is necessary to examine budget documents of the individual junior colleges, senior colleges, and universities.

Student Aid

Texas does not have a central office responsible for funding student aid. Although the State's public junior colleges, senior colleges, and universities include student aid monies in their biennial budget requests, funds for student aid are not identified as such.

Direct Support

The Department of Human Resources directly supports the Psychiatric Residency Program at the Austin State Hospital and the Research Institute of Mental Health Sciences in Houston, Texas.

The Department of Mental Health and Mental Retardation is the only State agency that provides support for the specific training of health manpower.

* VIRGINIA

The following agencies and offices were visited: (April 21-22, 1975)

* State Council for Higher Education
* State Division of the Budget
* Capital Construction Division
* State Division of Personnel

Institutional Support

In Virginia, there are six systems involved in the training of health manpower: Virginia Commonwealth University-Medical College of Virginia, University of Virginia, other public universities, public State colleges, community colleges, and private colleges and universities. Private universities and colleges receive no State appropriations for operating support; therefore, health training programs operated by these schools are out-of-scope for this study.

The two medical schools in the State are funded on a line-item basis. Requests for funds are submitted biannually for review by the State Council of Higher Education and then to the State Division of the Budget for final review and approval.

All health training programs in other public colleges, universities, and community colleges are funded utilizing a cost formula, developed by the Virginia Commission of Higher Education, based on the number of full-time equivalent (FTE) students, the faculty/student ratio, and the average faculty salary in each institution. Ten percent is added for other instructional expenses, and a formula is used to obtain an allocation, by program, for the use of library services. The sum of these three components provides an approximation of State support for health manpower education programs.

Capital Outlay

Information on capital outlay for health programs, by institution and purpose, was obtained from the State Capital Construction Division. However, these data were not available by year, due to the state budgeting system, which is biennial: 1972 - 1974, and 1974 - 1976.

Capital construction is funded either by State general funds or State general obligation bonds. Institutions submit requests for funds to the Higher Education Commission, which forwards them to the Capital Construction Division for review and approval.

Student Aid

The State operates two programs that provide financial assistance to students: A guaranteed student loan program, which involves no outlay of State funds, and grants provided by the Commission of Higher Education to match Federal funds provided to aid financially-troubled students.

Data on these grants program, by school and by program, were obtained at the Commission of Higher Education.

As a member of the Southern Regional Education Board (SREB), the State provides approximately $20,000 per year for the training of optometry students in out-of-State institutions. Future plans are being made to include other professions in the program.

Direct Support

At the graduate level, Virginia State Department of Health provides scholarships for students in programs of nursing and dental hygiene. Funds are also provided for graduate nursing.

* WASHINGTON

In terms of its health manpower training programs, Washington, relative to many other Western States, is innovative and offers a wide range of training programs. Several neighboring States are dependent upon Washington for their health manpower supply.

The following agencies and offices were visited: (March 18-20, 1975)

* Office of Program Planning and Fiscal Management
* State Board for Community College Education
* Department of Social and Health Services
  - Office of Personnel Development and Training
    - Community Services Division
    - Health Services Division
* Coordinating Council for Higher Education
* Coordinating Council for Occupational Education
* Office of the Superintendent of Public Education
* University of Washington
  - Office of Health Affairs
  - Office of Health Sciences

Figure 21 is an organization chart showing offices visited.

Two special studies were found which will provide a valuable input to allocation methodology. The first study dated March 1975 is a financial analysis of the five dental hygiene programs in Washington by the Council on Higher Education. Cost data and estimated State funding are given for each. The second study covering academic year 1972-73 conducted by the Community College Board and Council on Higher Education is an analysis of costs, by program, in all State-supported institutions of higher education. Hereafter, it will be conducted biennially.

Institutional Support

Four State-supported educational systems in Washington are involved in the training of health manpower: University of Washington, Washington State University and the State colleges, the Community college system, and the five technical institutions.

Except for the technical institutions, all of the educational systems offer training programs in the health sciences of at least two years' duration.

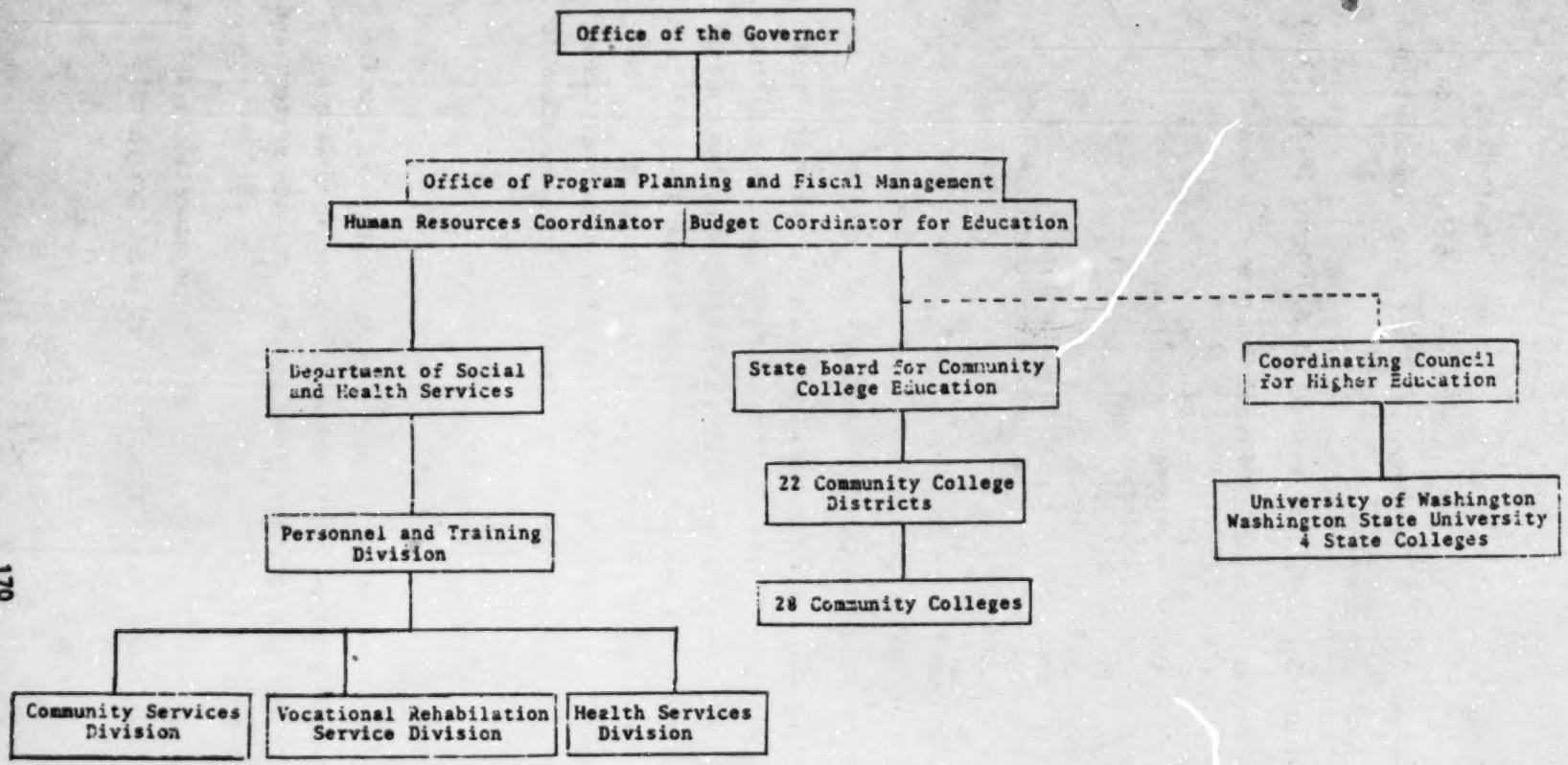
Office of the Governor
Office of Program Planning and Fiscal Management
Human Resources Coordinator
Budget Coordinator for Education
Department of Social and Health Services
State Board for Community College Education
Coordinating Council for Higher Education
22 Community College Districts
University of Washington
Washington State University
4 State Colleges
Personnel and Training Division
28 Community Colleges
Community Services Division
Vocational Rehabilation Service Division
Health Services Division

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Figure 21: ORGANIZATION CHART OF OFFICES VISITED IN THE STATE OF WASHINGTON

The University of Washington, which comprises schools of medicine, dentistry, nursing, allied health, public health, and pharmacy, trains the greatest number of health personnel in the State and expends the greatest amount of State dollars in support of this training. University budgeting procedures do not provide information on the funding, by department, within individual schools but data on State support by school is available within the Division of Health Sciences. The University operates as a semi-autonomous agency within the State government and is funded directly by the State Legislature, so that neither the Office of Program Planning and Fiscal Management nor the Council on Higher Education could provide information on its programs or budget. This data was available only from the University.

Washington State University, the only other State-supported university, operates health-training programs in nursing, pharmacy, and veterinary medicine. Of the 4-year State colleges, only Eastern Washington State College offers programs in the health sciences (lab technology, nursing, and dental hygiene).

Washington State University and the State colleges are funded through the Office of Program Planning and Fiscal Management (OPPFM). The Council on Higher Education, OPPFM, and the individual institutions participate in the budgeting procedures for the schools, Most budget recommendations are based largely upon a funding formula applied to each institution. However, funding of health sciences programs, having been recognized as more costly than most, is computed separately and is based on such considerations as full-time equivalent students, faculty student ratio, mean faculty salaries, etc. Relevant program and budget information for health sciences programs was obtained by contacting WSU and EWSC and the Council on Higher Education.

A centralized State Board for Community College Education is responsible for the coordination and management of activities in all 28 community colleges in 22 community college districts. Individual institution budgets are developed by the schools and the Board, and are subsequently presented by the Board to the Governor and the State Legislature. State appropriations account for approximately 75 percent of community college funding; the remainder consists primarily of student tuition payments,

which are made to the schools directly. School budgets are based on a 5-point formula (full-time equivalent students by program area, student services, libraries, administrative expenses, and plant maintenance), which is applied to each of 13 budget groupings or program areas. Other conditions such as student-teacher ratios, and part- and full-time faculty are used as additional input. By applying this formula to institution expenditures for the years under investigation, the Board was able to provide aggregate health science program expenditures and specific program enrollments at each of the 20 community colleges offering health-related training programs.

Washington State does not provide any funds for the support of private schools.

Capital Outlay

Capital expenditures for new projects, renovations, and equipment are considered in the institutional budgets. Expenditures for the University of Washington, WSU, and the State colleges are included in the State's biennial budget.

Capital projects for community colleges are handled through the Community College Board, and appropriations appear in the capital budget of the Board, not in the budgets of individual institutions. The Board's Capital Budget Officer was able to provide a list of capital appropriations for vocational facilities housing health occupation training programs.

Student Aid

The State of Washington does not operate a scholarship or student aid commission. All aid is based on financial need and is appropriated through the institutions. There are no State-supported programs with funds earmarked specifically for the health sciences.

Financial support for students in 4-year health sciences program was identified through the Council for Higher Education. (Student aid funds for the health sciences will be estimated by means of our allocation methodology.

State-sponsored student aid programs for students in the community colleges are relatively small. Information on the funds expended and number of grants per school was provided by the Community College Board; data is not available by program area.

Direct Support

There are no State-supported health manpower training programs of two years' duration receiving direct support from the State.

* WEST VIRGINIA

The following agencies and offices were visited: (June 14-15, 1975)

* West Virginia Board of Regents
* Budget Division, Department of Finance and Administration
* West Virginia Department of Mental Health
* Division of Vocational Education
  - Department of Finance and Administration
* Division of General Support Services
  - Department of Health
* Comprehensive Health Planning Unit
* Office of Federal-State Relations

Institutional Support

Publicly-funded health manpower training is provided through West Virginia University, Marshall University, and several State and community colleges. Funding for all of these institutions is managed by the West Virginia Board of Regents which acts as an intermediary, between the individual institutions and the State legislature.

The State's only School of Medicine, School of Dentistry, and School of Pharmacy are at West Virginia University in Morgantown. Nursing programs are offered at West Virginia University, Marshall University, and most of the colleges and community colleges. All of the institutions of higher education provide instruction in at least one allied health occupation.

All of West Virginia's public institutions of higher education are funded in the same manner: Budget requests are submitted to the State legislature through the Board of Regents. The Board of Regents is empowered by law to allocate monies to the various institutions based on its own analysis of the needs and priorities of each institution.

Capital Outlay

The Board of Regents is the focal point for requests for public funding of construction and major capital improvements.

State agencies made no capital expenditures in health manpower training areas in the past three fiscal years.

Student Aid

The West Virginia Board of Regents, estimated that yearly aid to students in health sciences programs amounted to $100,000. Tuition levels are extremely low ($300 per year).

Direct Support

State agencies provide little support for health manpower training programs of two years or more duration. The only such programs identified were student nurse training programs operated by Departments of Mental Health in State Hospitals. Other health manpower training programs carried out in various State agencies are out-of-scope for this study.

* WISCONSIN

The following agencies and offices were visited:(June 16-17, 1975)

* Department of Health and Human Resources
* State Board of Regents
* Higher Education Aids Board
* Board of Vocational Technical Colleges
* Bureau of Policy Coordination

The State Board of Regents is responsible for reviewing all budget requests made by the University of Wisconsin System, and , as a result, was able to provide relevant data on all health manpower education programs within the system.

Institutional Support

Three principal education systems are involved in training of health manpower: The Wisconsin State University System; Vocational, Technical, and Adult Education Centers; and private colleges and universities.

The State university system includes a medical college, and offers programs ranging from pharmacy to allied health. In 1973, the 13 State Colleges in Wisconsin were merged and became part of the Wisconsin State University System. Former State colleges are now satellite campuses of the University, with better program coordination and a more efficient budgeting system than before.

State Vocational, Training, and Adult Education Centers are under the direction of the State Board of Vocational, Technical and Adult Education, which acts mainly in a program advisory capicity and offers technical assistance to the Centers in regard to course development.

The University of Wisconsin System is funded on a biennial basis. Each satellite campus must submit its budget request to the State Board of Regents, which reviews it and makes recommendations, then submits it to the General Assembly and Governor for funding. Appropriated funds are distributed to various satellite campuses through the Board of Regents.

The State's Vocational, Technical, and Adult Education Colleges are funded in a similar manner except that State monies are allocated directly to the various schools.

The Board of Regents and the Board of Vocational, Technical, and Adult Education were able to provide most data on institutional support.

Direct Support

The State Department of Health and Human Resources is the only State agency that provides direct support for the training of health manpower, primarily for psychiatric residency training programs or for employees working on advanced degrees related to health, through the Division of Health and the Division of Mental Health.

Capital Outlay

Information concerning capital outlays for the University of Wisconsin System and the Vocational, Technical and Adult Education Centers can only be identified by examining their budgets. A few aggregate figures were obtained from the State Board of Regents for capital outlays at the University of Wisconsin System.

Student Aid

Student aid in the State of Wisconsin is dispersed through the Higher Education Aids Board via three programs: Loan forgiveness, tuition reimbursement, and manpower program development. In addition, dental students at the Marquette University Dental School are awarded $3,000 each, as a State subsidy to the Dental School, which is an entity of the private university.

GLOSSARY

Actual Expenditures - Charges incurred, whether paid or unpaid.

Budgeted Expenditures - An authorization granted by a legislative body to make expenditures and to incur obligations for specific purposes.

Capital Outlay - Expenditure that results in the acquisition of fixed assets or of additions to fixed assets: land, existing buildings; improvements, construction or additions to buildings; or initial purchase, addition to or replacement of equipment.

Direct Support - Any health manpower training programs conducted or supported directly by any government agency. Included are agency-operated programs (e.g., tuition reimbursement programs) and funds allocated to health training programs and administered by the government-operated health institutions (e.g., State hospitals, clinics, etc.)

Fiscal Year (FY) - The 12-month period at the end of which the State or agency determines its financial condition, the results of its operations, and closes its books. The fiscal year varies from State to State. (*Citations in this report reflect the end date of the fiscal year.*)

Full-Time Equivalency (FTE) - An index of the number of students enrolled in a program. A full-time student is counted as one FTE, and part-time students are pro-rated on that basis.

Institutional Support - State support to institutions of higher education training students in the health professions. Included are funds appropriated and expended by State governments for support of current operations of institutions: instruction and related activities, administration, and routine maintenance.

Primary Sources of Data - Information obtained through personal interviews with selected individuals, primarily State officials or officers of educational institutions.

Restricted Funds - Those funds earmarked for specific program use.

Secondary Sources of Data - Existing documents and published reports such as State budget documents, university financial reports, or national inventories of expenditures. Information not obtained through personal interviews and on-site visits.

Student Aid - State appropriations and expenditures for student aid related to health manpower training, including dedicated scholarship programs, loans, and out-of-State student exchange programs.

Student Contact Hour - A measure of total time a student is actually participating in classroom work with an instructor. Several States utilize this figure in determining allocations for specific programs.

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